



United States  
Environmental Protection  
Agency

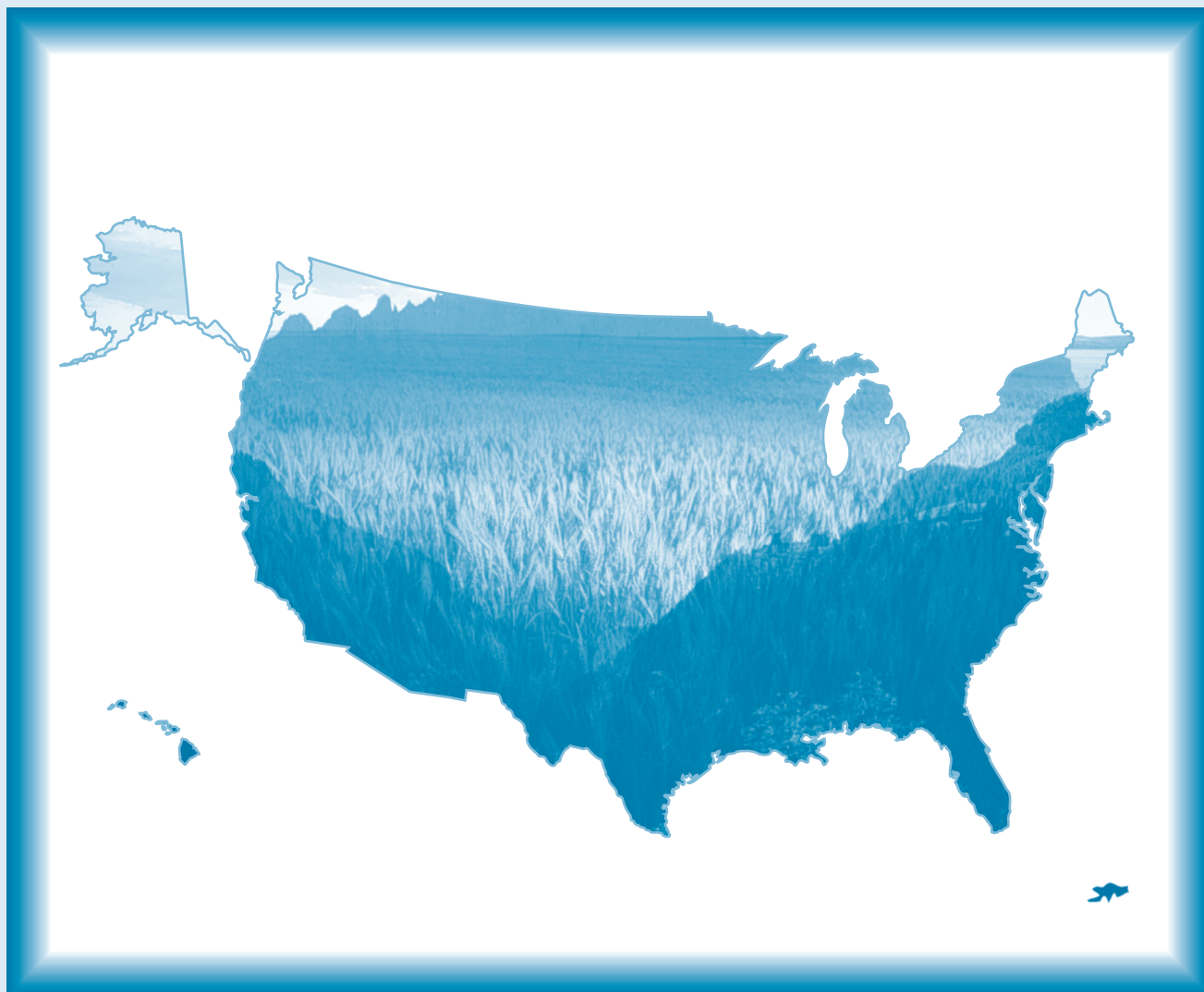
Office of Communications,  
Education, and Media Relations  
(1704A)

EPA-171-R-01-003  
September 2001

A large, light blue silhouette of the United States map serves as the background for the title. The map is oriented with the top of the country at the top of the page.

# 2001 Environmental Education Grant Profiles

# **2001 Environmental Education** **Grant Profiles**



**U.S. Environmental Protection Agency  
Office of Environmental Education  
Office of Communications, Education, and Media Relations  
Ariel Rios Building  
1200 Pennsylvania Avenue, NW (1704A)  
Washington, DC 20460**

**<http://www.epa.gov/enviroed>**



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# Notes



# SUMMARY STATEMENT

## ANNUAL AWARD UNDER SECTION 6 OF THE NATIONAL ENVIRONMENTAL EDUCATION ACT (PUBLIC LAW 101-619)

This report summarizes 228 environmental education grants awarded by the U.S. Environmental Protection Agency (EPA) during fiscal year (FY) 2001. The Environmental Education Grants Program was created under Section 6 of the National Environmental Education Act, and the first grants were awarded in 1992. EPA's Office of Environmental Education (OEE) manages the program. Grants of Federal funds over \$25,000 are awarded annually by EPA Headquarters and smaller grants by the 10 EPA regional offices, as described below.

The grants are awarded to stimulate environmental education by supporting projects that address EPA educational priorities such as: education reform and capacity building, human health, teacher training, career development, and community environmental issues, including those related to environmental justice. The goal of the program is to support projects that enhance the public's awareness and knowledge of environmental issues and the skills they need to make informed and responsible decisions that affect environmental quality. Any college or university, tribal or local education agency, state education or environmental agency, nonprofit 501(c)(3) organization, or noncommercial educational broadcasting entity is eligible for grants under the program.

In FY 2001, Congress appropriated almost \$2.8 million for the grants program. Federal funds may not exceed 75 percent of the total funding for a project. Dollar amounts reported in this document are the EPA funds awarded to the project only. Each project listed also has secured matching funds from sources other than Federal programs. Such matching funds, often exceeding 25 percent of total funds for a project, are not reported in this document.

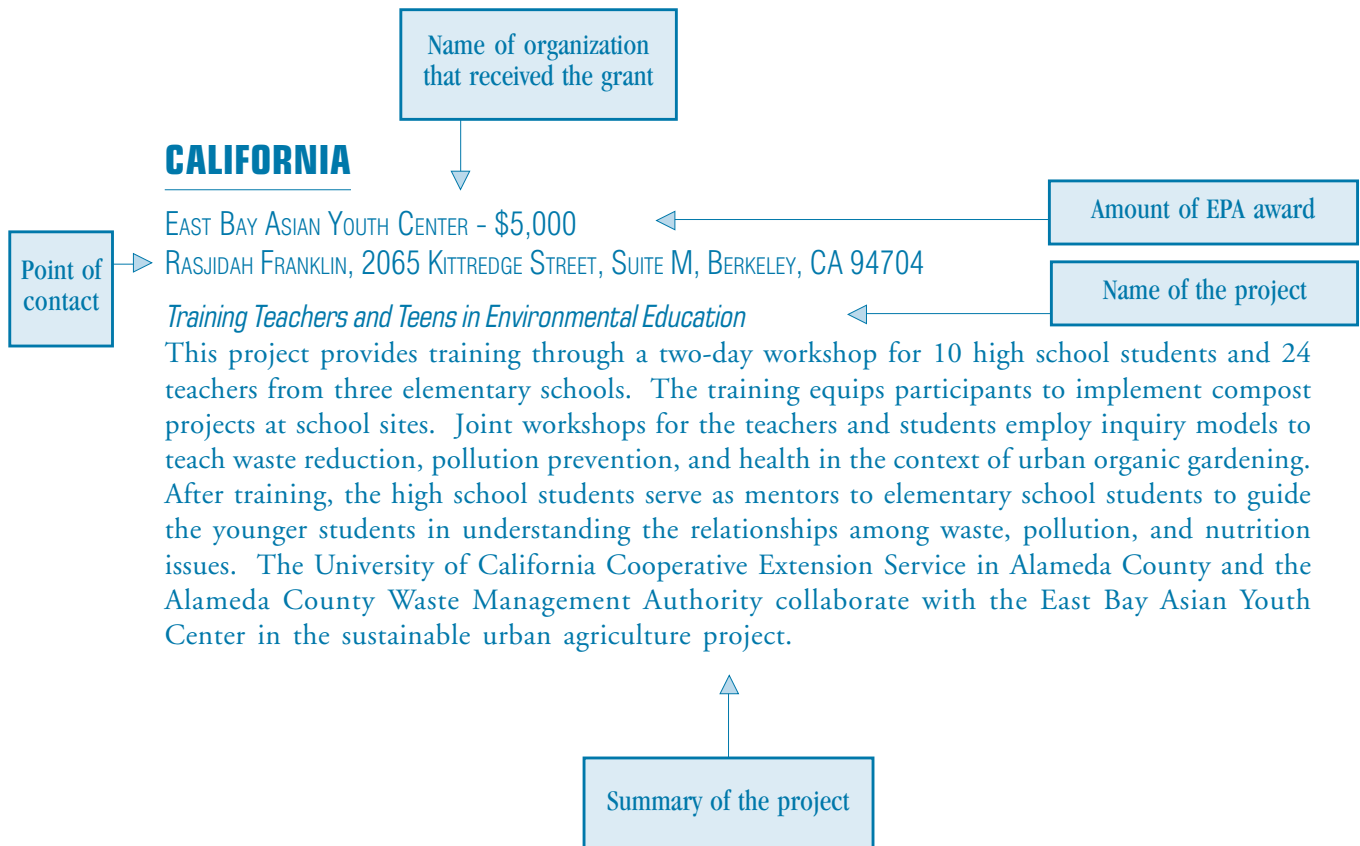
Headquarters awarded 13 large grants, for a total of \$898,229. Headquarters grants averaged approximately \$70,000; the smallest grant awarded was \$29,722; and the two largest awarded were for \$100,000 each. In total, EPA's 10 regional offices awarded \$1,886,000 for an average of 21 grants each. The competition for grants is intense, especially as the amount of funding requested increases. For example, in FY 2001, Headquarters funded about 6 percent of the 228 grant applications received. Because Congress mandates that 25 percent of the grant funds be awarded to small grants of \$5,000 or less, EPA is much more likely to award funding for small grants.

EPA's annual Environmental Education Grants Solicitation Notice describes the solicitation, evaluation, and award process through which EPA arrives at final decisions about grant winners. The solicitation notice is published and available for review in the Federal Register, which can be obtained at most libraries, and can be viewed on the Internet at [www.epa.gov/enviroed](http://www.epa.gov/enviroed). The Solicitation Notice and application forms can be downloaded from the web site at [www.epa.gov/enviroed/grants.html](http://www.epa.gov/enviroed/grants.html). The most recent solicitation notice also can be obtained by contacting EPA Headquarters or an EPA regional office. A list of EPA contacts is provided on pages 62 and 63 of this document.



# USING THE GRANT PROFILES

The main section of this document provides profiles of environmental education grants awarded annually. Profiles are listed in alphabetical order by the state or United States (U.S.) territory in which the project was conducted. Each profile identifies the organization that received the award, the amount of the award, and a point of contact for the project and presents a summary of the project. Illustrated below is a sample profile:



# ENVIRONMENTAL EDUCATION GRANTS AWARDED BY EPA HEADQUARTERS

## California

ADOPT-A-WATERSHED — \$100,000

KIM STOKELY, P.O. BOX 1850, HAYFORK, CA 96041

### *Southeast Leadership Institute*

Modeled after the National Leadership Institute held yearly in Oregon, the project expands the reach of the successful Adopt-A-Watershed program to underserved populations of environmental educators. Through intensive training sessions and professional development workshops, teachers and leaders in African-American, Hispanic, Native American, and low-income communities are being trained in working together to form new approaches and partnerships to resolve environmental, educational, and community issues. Under the three-year project, the participants receive extensive training, access to resources, and long-term support as they learn how to establish sustainable programs in their own communities. The participants, working together in teams of teachers, community coordinators, and representatives of institutions of higher education, are implementing a service-learning strategy that uses the local watershed as an integrating context for learning. The partner organizations also are integrating the program into elementary and secondary pre-service teacher preparation programs. Partners in the project include the Historically Black Colleges and Universities/Minority-Serving Institutions Consortium, Global Learning and Observations to Benefit the Environment (GLOBE), River of Words (ROW), the Hamline University Center for Global Environmental Education, Community Matters, and the School Yard Habitats program of the National Wildlife Federation.

CALIFORNIA COASTAL COMMISSION — \$79,177

CHRISTIANE PARRY, 45 FREMONT STREET, SUITE 2000, SAN FRANCISCO, CA 94105

### *Boating Clean and Green Campaign, Phase III*

Under this project, the California Coastal Commission is implementing the third phase of the Boating Clean and Green Campaign, a statewide effort to increase awareness of environmentally sound boating practices that will help eliminate non-point source pollution associated with boating. The first and second phases of the project, funded in part by grants from EPA, were focused on developing the outreach campaign and distributing materials. Under the third phase, additional geographic areas are the target of “dockwalkers” – volunteers who “walk the docks” to talk with boaters and owners of marinas about the environmental and economic effects of pollution associated with boating, as well as applicable pollution prevention practices. The purpose of the effort is to teach the boaters how to control and prevent non-point source pollution of water and to distribute free boater kits and post signs at fuel docks. The campaign is intended to serve as a model for similar communities in the areas of the United States in which large boating populations are found. Key partners include representatives of the United States Coast Guard and the United States Coast Guard Auxiliary, University of California Sea Grant, the San Francisco Bay Conservation and Development Commission, the California Department of Boating and Waterways, the California Integrated Waste Management Board, the California Department of Fish and Game, the Office of Oil Spill Prevention and Response, the San Francisco Estuary Project, Monterey Bay National Marine Sanctuary, Recreational Boaters of California, the Northern California Marine Association, the California Port Captains and Harbormasters Association, Save Our Shores, the Santa Monica Bay Restoration Project, and the National Clean Boating Campaign, as well as the waste management authorities of several cities and counties.



## District of Columbia

DISCOVERY CREEK CHILDREN'S MUSEUM – \$35,000

LAURA HAMILTON, 5125 MACARTHUR BOULEVARD, NW, SUITE 10, WASHINGTON, DC 20016

### *DC Baywatch Program*

The DC Baywatch Program, created to foster an understanding of and appreciation for the Chesapeake Bay, targets students in grades 3 through 6 in Washington, D.C.'s public schools. The project incorporates hands-on and inquiry-based education for students, professional development workshops for teachers, and development of a web-based educational component. Set in the unique, natural settings offered by the Discovery Creek Children's Museum, the program engages students in interactive education in the environmental sciences by providing them opportunities to explore the tributaries and rivers that feed the Chesapeake Bay, touch the animals and birds that depend on the watershed, and participate in activities that develop critical-thinking skills. Through such hands-on experiences, the students develop a connection to their natural world, a sense of ownership of their communities, and a desire to take action to protect and preserve the natural treasures of their watershed. Teachers also participate in professional development workshops to ensure that the critical-thinking skills developed during the project continue to strengthen after the program has ended. Key partners in the project include the Chesapeake Bay Foundation, the Smithsonian Institution Environmental Research Center, the Scales and Tales program of the Maryland Department of Natural Resources, and Project WET.

## Illinois

ENVIRONMENTAL EDUCATION UNIT, CHICAGO HOUSING AUTHORITY – \$89,325

KATHRYN GREENBERG, 626 W. JACKSON BOULEVARD, CHICAGO, IL 60661

### *Healthy Homes Education Project*

Through training, hands-on demonstrations, and tool kits, residents of public housing developments in Chicago are participating in a program that addresses health problems that affect residents of impoverished minority communities because of exposure to indoor air pollutants, allergens, and pesticides. Participants in the project learn how to promote environmentally healthy homes through intensive training sessions, workshops, and home visits. The project educates residents of public housing developments, staff of the Chicago Housing Authority (CHA), managers of private property, and pest control subcontractors about integrated pest management and the environmental health hazards caused by indoor air pollutants, allergens, and exposure to pesticides. That goal will be accomplished by: (1) increasing awareness and knowledge on the part of residents about interrelated environmental issues, (2) increasing their knowledge about asthma management, (3) increasing implementation of asthma management plans for families residing in public housing who are affected by asthma, and (4) decreasing the number of pests present in housing units and the amounts of pesticide used in those units. Supporters of the project include CHA's Environmental Unit, Pediatric Case Management Services, the American Lung Association, the Chicago Department of Public Health, and the Safer Pest Control Project.

## Kansas

KANSAS ASSOCIATION FOR CONSERVATION AND ENVIRONMENTAL EDUCATION – \$38,853

LAURA DOWNEY, 2610 CLAFLIN, MANHATTAN, KS 66502-2743

### *Community-Based Environmental Issues Forums*

The goal of the project is to train adult participants in using community-based environmental issues forums (CBEIF) as a tool to address environmental issues. Through the forums, community members identify issues, reach consensus, and develop action plans that address the issues of concern. A contingent





of environmental education leaders trained in facilitating the processes that take place in public forums is training a core group of facilitators in using CBEIFs. The newly trained leaders, in turn, are organizing and conducting CBEIFs in their own communities to educate members of the public about environmental issues relevant to their communities and engage those citizens in resolving such issues. The capacity-building strategy developed under the grant is an easily replicated model for other states and regions. The Kansas Environmental Leadership Program is the key partner in the project. Supporting organizations include the Kansas Water Office, the Kansas Department of Health and Environment, the Kansas Center for Agricultural Resources and the Environment, the Sierra Club, the Kansas Natural Resource Conservation Service, the Kansas Farm Bureau, the Kansas Association of Conservation Districts, the Kansas Rural Water Association, the Kansas Rural Center, and the state's groundwater districts.

## Maine

UNIVERSITY OF MAINE — \$72,148

SARA LINDSAY, OFFICE OF RESEARCH & SPONSORED PROGRAMS, 5717 CORBETT HALL, ORONO, ME 04469-6717

### *The Silver Wake: An Integrative, Community-Based Curriculum*

Building on the successful alliance between the University of Maine's Cooperative Extension and Sea Grant programs, the Silver Wake project reaches middle school students, their teachers, and volunteers in coastal communities to educate them about environmental issues in their neighborhoods. By participating in "real-life" science, the students and their families, teachers, and communities are learning why it is important to ask and answer questions about their environment. Phytoplankton found along the coast of Maine provides the theme for improving and integrating the curriculum and educational practices in 12 middle schools. The teachers attend an intensive 10-day institute, followed by two-day workshops, to develop curriculum plans aligned with the state's science standards and to learn how to use Internet resources effectively in their classrooms. In turn, the students benefit from the new curriculums, as well as visits by project staff and volunteers who lead sessions on various environmental issues. A web site is being developed to facilitate communication among the teachers and students and to serve as a forum for the posting of student portfolios. The Penobscot Bay Stewards Program is a significant partner in the project.

## Maryland

MARYLAND DEPARTMENT OF NATURAL RESOURCES — \$51,617

THOMAS PARHAM, RESOURCE ASSESSMENT SERVICE, 580 TAYLOR AVENUE, D-2 ANNAPOLIS, MD 21401

### *Bay Grasses in Classes*

Developed jointly by the Maryland Department of Natural Resources (MD-DNR) and the Chesapeake Bay Foundation (CBF), the project promotes stewardship of the Chesapeake Bay by increasing student involvement in the restoration of submerged aquatic bay grass in currently unvegetated areas. The target audiences, middle and high school students and their teachers, are learning about bay grasses as they grow the grasses in their classrooms, perform experiments, and ultimately plant the grasses in tributaries of the Chesapeake Bay. Participants include students from low-income families and physically and mentally challenged youth. They conduct experiments, submit the data for posting on the "Bay Grasses in Classes" web site, and engage in classroom activities that encourage the development of critical-thinking, problem-solving, and decision-making skills. At the end of the project, the students assist biologists from MD-DNR and CBF in planting grasses at designated restoration sites. Designed to be easily adaptable, the project can be used in other locations for similar audiences and has the potential for wide application.



## Massachusetts

MASSACHUSETTS YOUTH TEENAGE UNEMPLOYMENT REDUCTION NETWORK, INC. – \$29,722  
BARBARA DUFFY, 43 CRESCENT STREET, BROCKTON, MA 02301

### *The Student Water Action Tracking (SWAT) Team*

Massachusetts Youth Teenage Unemployment Reduction Network, Inc. (MY TURN) works collaboratively with a number of community-based agencies, government agencies, and educational entities to develop and implement career development programs. This project is focused specifically on assisting youth in identifying and developing their skills through career exploration and employment training. Representing a diverse, urban community, selected high school sophomores are learning about water pollution and environmental careers through their participation in projects conducted in the classroom, as well as hands-on field demonstrations. Organized into small teams, the students update and add to information about the location, routes, and final destinations of the city's storm-drain system, conduct weekly water tests, design and place information stencils on storm drains, and develop flyers that describe their activities and distribute the flyers to neighboring communities. Supporters of the project include Brockton High School, the Champion Charter School of Brockton, Wheaton College, the Brockton Water Commission, the Brockton Department of Public Works, the Executive Office of Environmental Affairs – Taunton River Watershed Team, and the Taunton River Watershed Alliance.

## Michigan

YPSILANTI PUBLIC SCHOOLS – \$74,000  
TULANI SMITH, OFFICE OF ACADEMIC SERVICES, YPSILANTI, MI 48197

### *Sustainability Education for Sustainable Communities*

The project addresses a critical need in Washtenaw County to bring together teachers and students to use education reform as a means of addressing the links among student achievement, urban sprawl, and sustainability of communities. The target audiences of the project, middle and high school teachers and students, are developing a model for education reform that is based on sustainability education. The goals of the project are to: (1) train science and social studies teachers to lead students through investigations of contemporary environmental, social, and economic issues; (2) support and mentor teachers as they implement classroom investigations; (3) use presentations, newsletters, and reports developed by the students to educate the community about positive responses to contemporary challenges; (4) evaluate the effect of the project on the practices of the teachers and the students' achievements; and (5) disseminate the components of the project – workshop designs, lesson plans, assessment tools, and case studies – to promote its replication. The outcomes of the project are evaluated against state educational standards, and the principal components of the project are distributed at the local, state, and national levels. Partners in the project include Washtenaw Intermediate School District, Washtenaw County Government, Sustainable Washtenaw, the Michigan Alliance for Environmental and Outdoor Education, the Northeast Initiative, the New Jersey Sustainable Schools Network, the BESS Project, and consultants from the University of Michigan and Eastern Michigan University.

## North Carolina

ENVIRONMENTAL EDUCATION FUND – \$74,365  
SHANNON QUESADA, 1609 MAIL SERVICE CENTER, RALEIGH, NC 27699-1609

### *Teaching of Earth/Environmental Education*

The mission of the Environmental Education Fund is to raise public awareness of the environmental consequences of the actions of individuals and to establish partnerships for environmental education. Recognizing the need to provide teachers in North Carolina with improved training and access to resources



related to earth/environmental science, the Environmental Education Fund and its partners develop an environmental education resource kit, train teachers, and establish a network through which teachers are provided long-term monitoring and support. High school earth and environmental science teachers participate in five-day teacher training institutes facilitated by professional environmental educators. Three such institutes are provided for the teachers. By linking teachers with environmental educators, the project is developing and sustaining a network of educators, programs, and resources that is useful for implementing environmental education initiatives statewide. The model for building capacity and addressing education reform can be used as a model for other states in which statewide coordination of environmental education is less well-developed than that in North Carolina. Partners in the project include the North Carolina Department of Environment and Natural Resources, the North Carolina Association of Environmental Education Centers, the North Carolina Department of Public Instruction, and the Wildlife Resources Commission.

## Pennsylvania

SCHOOL DISTRICT OF PHILADELPHIA — \$100,000

KENNETH HOLDSMAN, 2120 WINTER STREET, PHILADELPHIA, PA 19103-1099

### *Enviro-Stewards*

In its effort to become the first large urban public school system to incorporate service-learning environmental education projects into requirements for promotion and graduation, the School District of Philadelphia takes a hands-on approach to providing training and resources to teachers and students in grades kindergarten through 12. Teachers participate in a one-day symposium, receive professional development training in service-learning and environmental education, and build partnerships with outside environmental organizations to design service-learning projects. Students in turn engage in those projects to learn about their environment and enhance their critical-thinking and problem-solving skills. Examples of some of the topics addressed by the projects include air monitoring, surveying and monitoring of water, and community gardening. Funding for at least 34 of the projects also is provided under the project. Students reached by the project represent low-income, culturally diverse communities of African-American, Caucasian, Hispanic, and Asian populations. The projects, the results of which are documented in a videotape, can be used in other areas. Earth Force, the Fairmount Park Commission, the Schuylkill Center for Environmental Education, and Urban Tree Education are partners in the project.

## Tennessee

SHELBY COUNTY SCHOOLS — \$97,853

LORRAINE JONES, 160 S. HOLLYWOOD STREET, ROOM 210, MEMPHIS, TN 38112

### *Storm Water Environmental Education Project (SWEEP)*

In collaboration with its partners, Shelby County Schools is educating community members about pollution prevention and their role in restoring polluted rivers and creeks in the community. The principal audience, middle school students who attend after-school programs and their teachers, are drawn from predominantly African-American, low-income communities in which academic achievement is significantly below national norms. Under the project, teachers receive training and assistance in developing a model integrated environmental science curriculum unit and program that is the framework for the student program. The students, organized into small groups of 15, attend 12-week sessions during which they work on environmental projects, participate in field trips, and design and develop web sites on prevention of excessive runoff of storm water. The curriculum unit has widespread applicability and will be used by other middle schools in the district, as well as other school districts in the state. The project also fosters partnerships among teacher preparation institutions and local school districts to advance knowledge about school reform



and practices that benefit pre-service teachers. Key partners in the project include the City of Memphis Public Works Division, Memphis City Schools, Christian Brothers University, LeMoyne-Owen College, Rhodes College, the Vollintine-Evergreen Community Association, the Wolf River Conservancy, Memphis City Beautiful, and Thompson and Baker.

TENNESSEE AQUARIUM — \$56,169

KATHLEEN MEEHAN, ONE BROAD STREET, P.O. BOX 11048, CHATTANOOGA, TN 37401

*Watershed, Testing, Education & Research (W.A.T.E.R.)*

The mission of the Tennessee Aquarium, the largest fresh-water life center in the world, is to foster the understanding, celebration, and conservation of global aquatic environments through excellence in education, husbandry, community relations, and development of exhibits. Under the W.A.T.E.R. project, high school students are engaged in a program that promotes clean water. The students, drawn from public and private schools and a group of home-schooled youth, learn about topics related to watersheds by participating in hands-on, field-based projects facilitated by educators with the Tennessee Aquarium or representatives of one of the collaborating institutions. The students conduct research projects at watershed sites, attend seminars and workshops focused on water quality and water-testing skills, and participate in community conservation projects. Throughout the project, the students develop and enhance their critical-thinking and problem-solving skills by identifying possible solutions to the problems that affect watersheds and implementing those solutions that prove to be practicable. The project is supported by the Southeastern Aquatic Research Institute, the Tennessee Valley Authority, the Hamilton County Soil Conservation District, the Natural Resource Conservation Service, and Chattanooga State Technical Community College.



# Grants Awarded by EPA Regional Offices

## ALABAMA

CAHABA RIVER SOCIETY - \$10,000

RANDY MECREDDY, 2717 7TH AVENUE, SUITE 205, BIRMINGHAM, AL 35233

### *Children Linking Environmentally Across the Nation (CLEAN) Environmental Education Training*

The goal of the project is to build environmental literacy by providing quality training to help teachers make science come alive and capture their students' attention. During the past four years, the Cahaba River Society's (CRS) CLEAN Program has provided hands-on educational field trips, teacher workshops, and interdisciplinary classroom curriculum activities to students and teachers in the Cahaba River watershed and drinking-water service area. CRS is expanding the teacher-training component of the program by offering additional hands-on workshops to educators to improve their environmental education teaching skills. The workshops prepare teachers to use the CRS CLEAN curriculum to improve their environmental education teaching skills and enhance field trip experiences.

CLEAR BRANCH UNITED METHODIST CHURCH - \$5,000

CRAIG SMITH, 8051 GLENN ROAD, TRUSSVILLE, AL 35173

### *Rivers To Mind*

Venture Crew is a program for young men and women between the ages of 14 and 21 that is organized and sponsored by the Boy Scouts of America. A Venture Crew group sponsored by the Clear Branch United Methodist Church canoes several rivers in central Alabama and is producing a multimedia presentation that focuses on the environmental problems the group observes during the canoe trips. The group provides the presentation to schools and community organizations. The objective of the group's effort is to bring the essence of the rivers to the minds of audiences and to ask the members of those audiences to help "mind the rivers." It is hoped that increasing public awareness of existing environmental problems will help increase concern for the environmental condition of the rivers.

## ALASKA

CENTER FOR ALASKAN COASTAL STUDIES, INC. - \$5,000

MARILYN SIGMAN, P.O. BOX 2225, HOMER, AK 99603

### *Kachemak Bay Coastweeks 2001*

Under the project, an integrated Coastweeks program of coastal environmental education for communities in the vicinity of Kachemak Bay is developed and coordinated. Outreach programs to all schools in the Kachemak Bay area focus on monitoring environmental changes in beaches and intertidal communities throughout the bay area. Participants increase their understanding of the adverse effects of marine litter and the degradation of intertidal habitats that results from pedestrian and vehicular traffic and other uses.

SOUTHEAST ISLAND SCHOOL DISTRICT - KASAAN SCHOOL - \$1,423

BARRY STEWART, P.O. BOX KXA, KETCHIKAN, AK 99950-0340

### *Kasaan School Compost Project - Recycling*

School staff and citizens of the Organized Village of Kasaan educate students about the benefits of composting. They design and implement a program on the recycling of vegetable waste and the use of red worms to create compost. The hands-on project teaches students how to construct composting bins. Students also learn what to use to make the compost, how to take care of the compost, and how to use the compost. The project is particularly beneficial because the Village of Kasaan's landfill closed recently, and citizens now must drive 17 miles to Thorne Bay to dispose of their solid waste.



## ARIZONA

FLAGSTAFF UNIFIED SCHOOL DISTRICT - \$5,000

CAMERON KERN, 3285 EAST SPARROW DRIVE, FLAGSTAFF, AZ 86004

### *Community Partnership for Environmental Education Classroom Experiences*

The project provides hands-on environmental science presentations for individual classrooms. The projects are developed by drawing upon existing curricula, including Project Learning Tree, Project WILD, Project WET, and others. Presenters from the Resource Center for Environmental Education use their knowledge of topics related to environmental science, collections, specimens, slides, and materials to involve children actively in learning about the environment. Teachers are offered continuing education workshops at no cost and have access to kits and materials they can use to teach students about the local environment.

NORTHERN ARIZONA UNIVERSITY - \$13,550

VIRGIL MASAYESVA, INSTITUTE FOR TRIBAL PROFESSIONALS, NAU Box 4130, FLAGSTAFF, AZ 86011-4130

### *Tribal Schools Ecological Monitoring Project*

The Tribal Schools Ecological Monitoring Project trains and supports teachers of kindergarten through grade 12 in rural schools in the application of ecological concepts through local, hands-on environmental monitoring programs. By collecting data on water chemistry, aquatic macroinvertebrates, and the condition of stream habitats, students develop a better understanding of riparian and aquatic systems in ecologically rich sites. Teacher training workshops are provided at the beginning of the school year. The four-day workshops focus on materials used in the GLOBE Program and on protocols related to the areas of atmosphere, remote sensing, land cover and biology, and soils. Students carry out the monitoring, analysis, and reporting. A follow-up meeting is held to encourage networking and allow participants to discuss the progress of their efforts.

TOWN OF ORO VALLEY - \$5,000

MELISSA SHAW, 11,000 NORTH LA CANADA DRIVE, ORO VALLEY, AZ 85737

### *Save a Plant*

The project educates the public about the need to preserve native plants and the unique environment of the Sonoran Desert and techniques for doing so. Two field-based courses are conducted, one for youth volunteers and citizens involved in community service projects and the other for volunteers representing non-profit organizations. Each course is designed to increase public awareness and provide volunteers practical education in organizing and carrying out efforts to salvage native plants from sites that are undergoing development. Through the program, landowners, developers, and volunteers are brought together to preserve the unique plants of the Sonoran environment.

## ARKANSAS

HOT SPRINGS SCHOOL SYSTEM - \$4,980

RICHMOND EDWARDS, 140 NORTH BORDER TERRACE, HOT SPRINGS, AR 71901

### *Hot Springs Environmental Project*

Students and educators participate in outdoor field experiences and activities to learn scientific methods of investigation of the various ecological habitats and environmental conditions of the Ouachita Mountains and its streams, vegetation, and air quality. Through analysis of potable water, soil, and vegetation, students make real-life observations upon which they can base predictions about future environmental conditions. The students in turn educate others in their community about the life-long habits of human populations and the effects of such behaviors on the environment.





NEWTON COUNTY RESOURCE COUNCIL - \$4,000  
BABS DECHANT, P.O. BOX 513, JASPER, AR 72641

*Ozark Discoveries for Educators*

Newton County is conducting two environmental education workshops for 50 educators at the sixth-through eighth-grade levels in 21 school districts. Partnering agencies select a variety of activities that focus on the natural surroundings of the Ozark Plateau and correlate with the Arkansas Department of Education's Learning Standards and the Guidelines for Excellence curriculum guides as developed by the North American Association for Environmental Education (NAAEE). The activities come from Project Learning Tree, Project WET, Project WILD, and Project Underground. Each workshop provides educators with tutorial assistance in choosing activities and demonstrating how they apply to classroom curriculum.

UNIVERSITY OF ARKANSAS AT PINE BLUFF - \$5,000  
JOHN MEISTER, 1200 NORTH UNIVERSITY DRIVE, PINE BLUFF, AR 71611

*Soils - The First Line of Environmental Protection*

Citizens living in a predominately rural and economically depressed area of delta Arkansas are involved in an instructional module on soil types and the importance of soil types in preventing environmental contamination. The module includes several models that provide hands-on activities that are age- and culturally appropriate, along with thought-provoking questions. The models demonstrate how water moves through watersheds and the soil before it reaches groundwater. The effects on water quality of various soil types and decisions about land use are depicted visually.

WHITE RIVER PLANNING & DEVELOPMENT DISTRICT - \$4,950  
VAN THOMAS, 1652 WHITE DRIVE, BATESVILLE, AR 72503

*Solid Waste and Recycling*

White River Planning & Development District informs and educates primary and secondary school administrators, teachers, and students about the health aspects of improper waste disposal. The district also implements school-based recycling programs in a rural, 10-county area of north-central Arkansas that encompasses 47 school districts. Under the project, workshops for teachers, needs assessments for individual schools, presentations, and technical assistance are provided to ensure that participants develop an understanding of the effects of personal habits on solid waste disposal.

## CALIFORNIA

*See page 3 for profiles of grants awarded to Adopt-A-Watershed and the California Coastal Commission by EPA Headquarters.*

ARCATA ELEMENTARY SCHOOL - \$4,823  
DAVID LABOLLE, 1125 16TH STREET, SUITE 201, ARCATA, CA 95519

*Students and Communities: A Model for Monitoring Stream Health*

The project expands and coordinates efforts to monitor an urban stream and fully integrate middle school students into this effort. In turn, stream monitoring becomes the focus of the students' environmental and life science education program. Students measure, analyze, and evaluate the effects of land use, primarily timber harvesting and urban development, on the health of Beith Creek. The creek, which is adjacent to the property of the school, provides an excellent opportunity for students to study their local environment.



The scientific data the students and members of local organizations provide to decision makers — the city of Arcata, the California Department of Fish and Game, and the California Department of Forestry and Fire — supports future management decisions and restoration activities in the watershed.

CALIFORNIA INSTITUTE OF BIODIVERSITY - \$5,000

CAROL BAIRD, 47 QUAIL COURT, #111, WALNUT CREEK, CA 94596

*Cal Alive! Exploring Biodiversity: Teacher Professional Development*

The professional development program consists of a two-day workshop for teachers in the Modesto City School District, and is based upon a series of CD-ROMs that features 53 types of habitat found in California. Developed with the advice of numerous teachers and scientists, the multimedia series covers major areas of natural science and focuses on evidence of the value of biological diversity and the effects of human intervention on the environment. Through the workshop, teachers expand their knowledge of the habitats of California and learn how to use the Cal Alive! teaching tool. Teachers then can incorporate the program and field activities into their curricula.

CALIFORNIA NATIVE PLANT SOCIETY - \$2,700

MARY SHAW, 25 CORTE DEL SOL, BENICIA, CA 94510

*Wetlands Environmental Education Program at the Benicia State Recreation Area*

This program offers a free, docent-led program at the Benicia State Recreation Area at Southhampton Marsh, a local wetlands in the town of Benicia. All students in grades 2 through 5 have the opportunity to learn how Native Americans use the wetlands and native plants and are introduced to wetland ecology. The program uses existing environmental education lessons and project-based learning materials that support the state's curriculum standards.

CALIFORNIA STATE UNIVERSITY (CSU), CHICO, RESEARCH FOUNDATION - \$5,000

JENNIFER ROTNEM, KENDALL HALL, ROOM 114, CHICO, CA 95929-0870

*Streaminders Salmon and Steelhead, From Eggs to Fry in the Classroom*

The project provides a countywide educational program for students in kindergarten through grade 12 that involves local public schools and CSU, Chico in supporting efforts to restore the native fishery. The program includes in-service training for 30 teachers and gives students the opportunity to raise salmon and steelhead fry in the classroom. Under the program, university students conduct field trips during which the younger students explore local creeks.

CITY OF SANTA BARBARA - \$25,000

ALISON JORDAN, P.O. BOX 1990, SANTA BARBARA, CA 93102-1990

*Green Gardener Certification Program*

The goal of the Green Gardener Certification Program is to offer education, training, and certification of participating gardeners and landscape contractors to improve efficiency in the use of resources and reduce pollution at landscape sites and to promote the participants' efforts to achieve those purposes. In addition, the program improves the health, appearance, and value of landscapes for customers and site managers, while providing economic incentives to participants in the program. The innovative certification program is a new educational tool local agencies can use in furthering their shared goals of efficient use of resources and reduction in levels of pollution at landscapes of the south coast of Santa Barbara County.





COMMUNITY ENVIRONMENTAL COUNCIL - \$5,000  
CAY SANCHEZ, 930 MIRAMONTE DRIVE, SANTA BARBARA, CA 93109

*Teacher Training Workshop Series*

Through this program, two series of three-day workshops for teachers are conducted. The workshops focus on three subjects: 1) water quality, 2) gardens and composting, and 3) natural resources and waste reduction. The workshops train educators to use curricula that are appropriate to grade and subject. Curricula include the Project Clean Water Watershed Curriculum, Garden Detectives, and others provided by the Community Environmental Council's Environmental Education Resource Library, such as Closing the Loop and A Child's Place in the Environment. Hands-on activities are the focus of the curricula, which provide teachers practice in integrating lessons related to the three subjects into their classroom curricula.

EUREKA CITY SCHOOLS - \$2,250  
RITA OMANDINI, 3200 WALFORD AVENUE, EUREKA, CA 95503

*Kids & Native Plants — Winship Junior High School*

The project brings a professional botanist and ecologist into science classrooms of Winship Junior High School. Students grow two plant species, the western azalea and the federally listed endangered western lily. In addition, students plant two- to three-year old western azaleas at azalea preserves in two state parks. The project increases students' awareness and understanding of natural systems and the missions and management practices of the Forest Service, U.S. Department of Agriculture (USDA), and the National Park Service, U.S. Department of the Interior. It also introduces students to the Endangered Species Act and management practices related to rare plant species.

HUMBOLDT STATE UNIVERSITY FOUNDATION - \$4,998  
DIXIE JOHNSON, P.O. Box 1185, ARCATA, CA 95518-1185

*Energy: The Power of Teaching*

The program is designed to teach junior high and high school science teachers in Humboldt County about sources of energy and technologies that generate energy, with an emphasis on renewable energy. The program familiarizes teachers with currently available energy curricula and assists them in leading their students in thoughtful reasoning about issues related to energy. Teachers also learn about the generation of renewable energy and participate in a hands-on laboratory, working with solar electric circuits and hydrogen fuel cell systems. Solar panels and portable fuel cells are available on loan to teachers for use in their classrooms.

MONTEREY BAY SANCTUARY FOUNDATION - \$18,981  
DENNIS LONG, 299 FOAM STREET, MONTEREY, CA 93940

*S.E.A. Lab Monterey Bay - Coastal and Ocean Science Education Camp*

Under the program, S.E.A. Lab conducts camps for students ages 11 and 12, during which the students are provided an educational experience related to the unique habitats of the Monterey Bay National Marine Sanctuary. Students stay in dormitories and are bused to various locations each day. The week's schedule includes lessons on a variety of topics related to the local watersheds and rivers, coastal environments, and the deep sea. A collaborative approach between S.E.A. Lab staff and the Monterey Bay area's many agencies and non-profit educational and research institutions that are related to the marine environment, contributes to the educational experience. Students broaden their understanding of issues related to coastal and marine environments and explore related careers, as well.



O'NEILL SEA ODYSSEY - \$4,800

DAN HAIFLEY, 2222 EAST CLIFF DRIVE, #6B, SANTA CRUZ, CA 95062

*Marine Sanctuary Education*

The program provides hands-on environmental education for 80 youth in Santa Cruz and Santa Clara counties. Students begin the program by participating in a community service project. Typical projects include beach cleanups, creek cleanups, stenciling of storm drains, restoration of native plants, monitoring of water quality, recycling, restoration of riparian habitats, and adoption of a watershed. The education coordinator and one instructor provided by O'Neill Sea Odyssey oversee the projects. After they have completed the community service project, the students participate in the core program, which includes instruction in navigation and mathematics, marine science, and marine ecology. Classroom and computer laboratory instruction are provided, and lessons related to the ocean are presented on a vessel.

SAN JOSE STATE UNIVERSITY FOUNDATION - \$20,670

SIMONA BARTL, P.O. BOX 720130, SAN JOSE, CA 95172-0130

*Incorporation of Marine Ecosystem Research into Public Education*

The project is a two-part program conducted in partnership with high school science teachers and their students. First, high school teachers attend a 30-hour summer workshop conducted by graduate students at Moss Landing Marine Laboratory (MLML) and Dr. Bartl. The teachers learn about background and preparatory materials, laboratory exercises, follow-up exercises, and evaluation procedures for each marine science topic. Additional time is provided for open discussion about how best to implement the program in their individual schools. MLML graduate students then visit the teachers' classrooms, bringing materials and leading the laboratory activities. Mentoring of the high school students by the graduate students is a significant element of the program.

SCHOOL ENVIRONMENTAL EDUCATION DOCENTS (SEED) - \$5,000

SHEILA MOLYNEUX, P.O. BOX 5704, NOVATO, CA 94948-5704

*Environmental Education Docents Program*

Under the program, an estimated 200 new teachers, docents, and pre-service teachers at Dominican University are recruited and trained. To expand the docent program to Spanish-speaking parents and volunteers, Spanish-language materials are developed. To support student projects, docents have access to free training, educational materials, technical support, classroom speakers, local field trips, and the resources of community organizations. All docents are trained to use the Project Learning Tree curriculum.

TAHOE-BAIKAL INSTITUTE - \$4,910

KAREN SMALLWOOD, P.O. BOX 13587, SOUTH LAKE TAHOE, CA 96151-3587

*Lake Tahoe as a Training Ground for Future Environmental Leaders*

This 5-week project, which uses conditions at Lake Tahoe as a means of teaching environmental problem-solving, is one half of a 10-week environmental exchange that takes place in California and Siberia, Russia. As many as 20 university-level students, graduate-level students, and young professionals from the United States, Russia, and one or two other countries come together for the summer to practice environmental problem-solving, using lakes Tahoe and Baikal as training grounds. Educational content is delivered through role-playing, student presentations, hands-on field work, cultural activities, and field trips.



THINK EARTH ENVIRONMENTAL EDUCATION FOUNDATION - \$5,000  
CORRINE BERENSON, 4031 CONEJO MESA, MOORPARK, CA 93021

*Air Quality Teacher Training and Curriculum Distribution*

The project educates youth in the Los Angeles Unified School District (LAUSD) who are under the legal driving age about the social and environmental effects of traffic congestion and unhealthful air quality. In addition, students learn about transportation alternatives and emerging transportation technologies. Teachers of eighth-grade science programs in the district are trained in the use of the newly released Air Care curriculum. The training familiarizes teachers with the materials included in the curriculum and strengthens teaching skills through hands-on demonstrations.

YOLO BASIN FOUNDATION - \$5,000  
MARCIA HOWE, P.O. BOX 943, DAVIS, CA 95617

*Service Learning in the Pacific Flyway*

The project facilitates restoration of habitats and increases public awareness of native fish, wildlife, and plants. Partners in the Service Learning in the Pacific Flyway project include the California Department of Fish and Game, the city of Davis, and the Yolo County Office of Education. The Yolo Basin Foundation is the primary provider of the interpretive and educational programs at the 3,700-acre wildlife area. Interns and service learning groups work with the foundation and its partners to achieve the objectives of the project. One of the tasks of the interns is to work with and coordinate individual service learning groups. Those groups carry out projects designed to enhance the educational value of the wildlife area and demonstration wetland to visiting students.

WATER EDUCATION FOUNDATION - \$5,000  
CHRISTINE SCHMIDT, 717 K STREET, SUITE 317, SACRAMENTO, CA 95814

*Water Is Our Future*

This program is based on the curriculum California Water Story, developed by the Water Education Foundation. The multi-media curriculum is consistent with the California State Frameworks for Science and History/Social Science and integrates water education into science, geography, history, mathematics, and art lessons. The program distributes the curriculum and provides numerous teacher workshops, with the objective of providing material and support to every elementary school in California.

WEST CONTRA COSTA INTEGRATED WASTE MANAGEMENT AUTHORITY - \$14,500  
KEITH McDADE, ONE ALVARADO SQUARE, SAN PABLO, CA 94806

*Environmental Resource Library and Workshop Series*

During the project, the authority develops a resource library and prepares a series of workshops for teachers in West Contra Costa County. The materials in the library include curricula, books, videotapes, audiotapes, games, and kits related to environmental subjects that are available on loan to teachers in the county. Resource materials focus on the topics of waste reduction, reuse, recycling, conservation of natural resources, and management of household hazardous waste. Presenters representing local environmental organizations conduct workshops on their specific areas of expertise. Topics include management of solid waste, household hazardous waste, organic gardening, urban sprawl, wetlands conservation, and more.



WILDERNESS YOUTH PROJECT - \$5,000

WARREN BRUSH, 1135 EUGENIA PLACE, CARPINTERIA, CA 93013

#### *Young Eagles Environmental Education Program*

This project expands the wilderness life skills and environmental education program to teach underprivileged youth the science and art of tracking and the application of field data. The youth learn to use CyberTracker software, field computers, and global positioning system (GPS) equipment to gather ecological data in a wilderness setting, map and plot their observations, and query their results to study the health of their local bioregion. The youth reinforce their learning by completing a service project with Conception Coast Project, during which they gather field data for their watershed advocacy work.

## COLORADO

FRONT RANGE EARTH FORCE - \$5,000

LISA BARDWELL, 2555 WEST 34TH AVENUE, DENVER, CO 80211

#### *Training and Support Program*

The FrontRange Earth Force Training & Support Program is a professional development and training strategy that helps educators support their students in exploring urban environmental issues.

IGNACIO UNIFIED SCHOOL DISTRICT - \$4,980

JULIE SOMERS, 315 BECKER, P.O. BOX 460, IGNACIO, CO 81137

#### *Stream Protection*

The project addresses an issue that affects the community: the degradation of a stream and the exposure of the roots of trees along the stream bank in the only park in the community, Shoshone Park. The purpose of the project is to research, design, and implement a plan to remediate a section of the stream bank and to design vegetative protection for the entry to the park located next to the stream. The design of the vegetative cover emphasizes plants native to Colorado and provides protection for the trees along the stream bank.

MEET THE WILDERNESS - \$5,000

TOM McCALDEN, P.O. BOX 4359, EDWARDS, CO 81632

#### *Wilderness Youth Education*

The project uses immersion in the wilderness environment to educate youth in the Eagle River Valley so that they may become informed future leaders in addressing the issue of growth and its effect on the environment. The Ecological Leadership School will be conducted in summer 2002 for disadvantaged and minority youth from Battle Mountain High School.

ROCKY MOUNTAIN BIRD OBSERVATORY - \$5,000

SHELLY MORRELL, 13401 PICCADILLY ROAD, BRIGHTON, CO 80601

#### *Migratory Birds*

The Migratory Birds project provides thousands of students and teachers a hands-on opportunity to learn about migratory birds at an educational bird-banding station.



ROCKY MOUNTAIN YOUTH CORPS - \$15,000

GRETCHEN VAN DE CARR, 2464 DOWNHILL DRIVE, UNIT W06, P.O. BOX 775504, STEAMBOAT SPRINGS, CO 80477

### *Environmental Education Mentors*

The 18- to 25-year-old members of the environmental education mentor group coordinate and implement environmental education curricula for the Conservation Corps and Science School groups under the direction of an education coordinator. The goals and objectives of the effort include encouraging the members of the two mentored groups to develop a sense of environmental stewardship and explore environmental careers through experience in environmental projects and examination of opportunities for higher education. The project links generations through mentoring, education, and the development of a sense of place and ownership.

SUMMIT RECYCLING PROJECT - \$4,750

KAY BEATON, P.O. BOX 4506, FRISCO, CO 80443

### *Recycling and Waste Reduction Issues*

The Eco-Cycle one-week lesson plan includes slide shows, overhead transparencies, experiments, games, and extension activities. It addresses issues related to recycling and waste reduction, both in the community and worldwide. The project is provided to students in grades 4, 5, and 6 at Summit County's six elementary schools. The project reaches 1,050 students and 36 teachers. The curriculum materials are available in both English and Spanish.

THORNE ECOLOGICAL INSTITUTE - \$5,000

PAT COMEUX, 5398 MANHATTAN CIRCLE, SUITE 120, DENVER, CO 80303

### *Science-Based Environmental Education*

The program addresses capacity-building with local area organizations; provision of hands-on environmental education, both in the classroom and on field trips; improvement of teachers' skills in the delivery of science-based environmental education; and promotion of educational reform by ensuring that all elements of the program meet state standards for science education. A total of 4,200 contact hours are served, with a minimum of 10 hours per teacher. The program reaches low-income families and communities in which the populations are approximately 90 percent African-American or Latino.

TWO PONDS PRESERVATION FOUNDATION - \$5,000

JANET TORMA-KRAJEWSKI, 5400 WARD ROAD, SUITE 100, ARVADA, CO 80002

### *Native Vegetation Project*

The purpose of the project is to promote the value of native vegetation in a semi-arid climate. School groups complete environmental lessons that focus on native vegetation, and special programs on native vegetation are provided to homeowners and local organizations.

THE UNIVERSITY OF COLORADO - \$5,000

SUSAN BUHR, CAMPUS BOX 572, BOULDER, CO 80309-0572

### *Earthworks 2001: Earth System Science for Teachers Workshop*

Financial assistance from EPA is used to pay a portion of the cost of implementing Earthworks 2001: Earth System Science for Teachers Workshop. The funds are used to cover transportation costs for one out-of-state participant; the cost of renting vans to transport participants and equipment to and from Calwood Center and on field trips; mileage costs for workshop leaders, scientists, and local participants; and certain operational costs for the workshop.



## CONNECTICUT

COLCHESTER PUBLIC SCHOOLS - \$5,000

KAREN LOISELLE, 127 NORWICH AVENUE, COLCHESTER, CT 06415

*Project Steward: A School and Community Environmental Partnership*

Colchester recently purchased a 111-acre open-space property that is expected to become an environmental classroom for the entire community. Using the Coverts Project model developed by the University of Connecticut Cooperative Extension Service, selected teachers and students learn about the physical features of the property and the organisms that inhabit it. The trained stewards work with personnel of the Connecticut Department of Environmental Protection's Goodwin Conservation Center to develop lesson plans related to land management and management of open spaces. During the pilot-test year, 80 teachers and more than 100 students are expected to participate in the project.

CONNECTICUT DEPARTMENT OF PUBLIC HEALTH - \$18,360

MARY LOU FLEISSNER, 410 CAPITOL AVENUE, HARTFORD, CT 06134

*Asthma Awareness Program*

The environmental education project educates culturally diverse, low-income families to identify and manage indoor air pollutants that aggravate the symptoms of asthma in children. The program focuses on educating families who live in dwelling units targeted by the health department of the city of Hartford for the reduction of hazards posed by lead-based paint under separate funding by the U.S. Department of Housing and Urban Development (HUD).

HARTFORD PUBLIC LIBRARY - \$5,000

MARY ALBRO, 500 MAIN STREET, HARTFORD, CT 06104

*Environmental Literacy and English for Speakers of Other Languages (ESOL)*

ESOL instructors combine ESOL teaching methods, strategies, and techniques with environmental education content and materials. Workshops introduce ESOL instructors to existing environmental education materials that can be incorporated into their classroom curricula. The project is expected to reach 40 participants. The Hartford Public Library has entered into a partnership with the Connecticut Department of Environmental Protection to conduct the Hartford Neighborhood Environmental Project.

NEW FAIRFIELD SCHOOL DISTRICT - \$10,642

KATHLEEN MATUSIAK, 3 BRUSH HILL ROAD, NEW FAIRFIELD, CT 06812

*Project CLEAR: The Candlewood Lake Environmental Awareness and Responsibility Project*

Project CLEAR is an alliance of education, community, and environmental agencies organized to demonstrate and disseminate a model watershed protection education initiative for students in kindergarten through grade 12 and residents of the five communities in the vicinity of Candlewood Lake. The project develops inquiry-based environmental education programs in the schools and communities to foster widespread support for and involvement in watershed protection programs. Educators in kindergarten through grade 12 and representatives of the communities are trained in Project WET. A core group of teachers incorporates Project WET into curricula at specific grade levels. Schools work in partnership with community organizations to provide field experiences in water activities. A minimum of 15 educators and 700 students in grades 5, 6, 9, and 11 participate in the project.





## DELAWARE

INDIAN RIVER SCHOOL DISTRICT - \$11,300

CONNIE FANNIN, ROUTE 2, BOX 292G, MILLSBORO, DE 19966

### *Outdoor Education Center at Ingram Pond*

The goal of the project is to provide students with field experience that will enhance and expand upon science instruction in elementary and middle school classrooms. Students study ecosystems in and around Ingram Pond, collect data to determine the ecological health of the pond, and identify the effects of human behavior on the quality of waterways.

## DISTRICT OF COLUMBIA

*See page 4 for a profile of a grant awarded to the Discovery Creek Children's Museum by EPA Headquarters.*

DISTRICT OF COLUMBIA PUBLIC SCHOOLS - \$25,000

GERALDINE OKWESA, 410 EAST STREET, NE, WASHINGTON, DC 20002

### *Stuart-Hobson Museum Magnet Middle School — School Reform and Teacher Training*

Under the project, the current seventh-grade life science and pre-algebra curricula are modified to include an ecological and statistical study of the pollution problems that affect the way in which plants and animals live and thrive in the rivers and tributaries of the Chesapeake Bay watershed. The changes in the curricula are designed to increase students' abilities to apply mathematical skills in their science classes. Approximately 120 students are expected to participate in the program.

THE GEORGE WASHINGTON UNIVERSITY - \$5,000

HELEN SPENCER, 2121 I STREET, NW, SUITE 601, WASHINGTON, DC 20052

### *Impervious Surface Study*

The goal of the project is to document the increase in the amount of land in Loudoun County, Virginia that is covered with roads, parking lots, and structures and to inform citizens and elected officials of the potential effects of such development on stream flows and water quality. The data and results of the analysis conducted under the study are shared with citizens and elected officials who decide how to set public policy to shape the future landscape of the county.

## FLORIDA

COMMUNITIES IN SCHOOLS OF FLORIDA - \$16,256

FRANCINE DIEMER, 1761 WEST HILLSBORO BOULEVARD, #201, DEERFIELD BEACH, FL 33442

### *Communities in Schools of Florida EnvironMentors Program*

The EnvironMentors Program pairs selected students in three Communities in Schools of Florida local organizations with adult professionals who work in the state's environmental agencies. The volunteer mentors undergo background screening and training. After successfully completing both screening and training, each volunteer is paired with a student in the Communities in Schools program. The two meet regularly to discuss various issues, including the mentor's job in the environmental field, the training necessary for that job, careers in the environmental field, school work, the concerns of the student, and other issues of importance to the student. The volunteers and students visit environmental facilities and parks to give the students the opportunity to engage in hands-on experiences related to environmental issues.



THE SCHOOL BOARD OF BROWARD COUNTY - \$5,000

FRANK MANLEY, 600 SOUTHEAST THIRD AVENUE, FORT LAUDERDALE, FL 33301

*Ecology-Based School Gardening Project*

The purpose of the project is to educate the community about environmental issues that affect them through the design and maintenance of a school garden. The Broward County Agriculture and Extension Education Division provides technical and programmatic support for curriculum development, instructional implementation of curriculum, and consulting for the development of the garden. The goal of the program is to provide teachers opportunities for professional development, introduce parents and students to environmental issues, and to foster career development. The objectives are met through workshops, experiential learning, and classroom instruction. A master gardener and horticultural agent are key facilitators for the project.

UNIVERSITY OF FLORIDA - \$5,000

BARBRA LARSON, DEPARTMENT OF ENTOMOLOGY AND NEMATOLOGY, UNIVERSITY OF FLORIDA, GAINESVILLE, FL 32611

*Public Education for the Conservation of Florida's Native Bromeliads*

The objective of the project is to stimulate thinking about and analysis of conservation of endangered species (specifically several species of native bromeliads), focusing on the trade-offs involved in protecting such native plants from introduced pests. The objectives are met by providing educational materials to members of several groups who are experienced in environmental education and who already work with the target audiences. The expected outcomes of the project include increased understanding among the public of the value of Florida's native bromeliads, increased support for efforts to save populations of the state's endangered and threatened bromeliads, and increased involvement on the part of teachers in using environmental issues that affect public lands as a teaching resource.

UNIVERSITY OF SOUTH FLORIDA - \$5,000

ELLEN KENT, COLLEGE OF PUBLIC HEALTH, 4202 EAST FOWLER AVENUE, FAO-126, TAMPA, FL 33620

*"Project HELP" - Public Health and Environment Leadership Project*

The purpose of "Project Help" is to initiate an environmental education program in west-central Florida that will increase citizens' understanding of important environmental public health issues that they may face in the 21st century, as well as their ability to resolve such issues and their commitment to achieve such resolutions. Experts from The College of Public Health (COPH) and the Department of Environmental Management lead students and teachers involved in the COPH's Public Health Possibilities (PHP) program in skill-building workshops to help them develop a strong understanding of environmental public health concepts and gain experience in problem-solving in the area of environmental public health. The PHP students and their teacher work together to develop interactive community learning activities and classroom curricula for their own use, as well as for use by friends, family, and other students.

## GEORGIA

CAMP FIRE BOYS AND GIRLS, INC. - \$5,000

MARIAN LONG, 100 EDGEWOOD AVENUE, SUITE 528, ATLANTA, GA 30303

*Camp Taccoa: Wetlands and Wildlife*

With the Wetlands and Wildlife project, Camp Taccoa is upgrading its environmental education program for students, educators, and summer campers to include an in-depth look at wetlands and animals that inhabit wetlands. The project has three components: 1) to offer environmental education at Camp Taccoa as a field trip destination for students, 2) to offer separate workshops for teachers to increase their knowledge of wetlands and habitats for use in the classroom, and 3) to strengthen the environmental education experience offered to summer campers. During the school year, children from counties in the area take field trips to the camp to participate in its environmental education program. In the summer, campers participate in the program.





DADE COUNTY SCHOOL SYSTEM - \$1,667  
JANE UNDERWOOD, P.O. Box 188, TRENTON, GA 30752

*Project Learning Tree Teacher Training - Awareness of Environmental Connections*

The purpose of the project is to enhance the instructional capabilities of teachers in Dade County by providing them with additional resources to extend existing programs and to support the development of additional programs that offer real-world connections among elements of the curriculum that help deepen students' understanding of and involvement in environmental issues. The local office of the Georgia Forestry Commission, as well as the regional office in Rome, provide training in the Project Learning Tree Program for Dade County teachers (of pre-kindergarten programs and in kindergarten through grade 12) during a one-day workshop. The program uses resources from the forest as a "window" to diverse environments. Throughout the activities, students are involved in investigative and decision-making processes.

GEORGIA FORESTRY FOUNDATION - \$22,417  
CARLA RAPP, 500 PINNACLE COURT, SUITE 505, NORCROSS, GA 30071

*Expanding the Mission of Georgia Project Learning Tree*

The project enhances and expands Project Learning Tree in the state of Georgia. Project Learning Tree exposes teachers and environmental educators to an interdisciplinary curriculum for pre-kindergarten children and students in kindergarten through grade 12 that focuses on the total environment — land, air, and water. Like the national model, Georgia Project Learning Tree trains volunteer facilitators throughout the state, who in turn use Project Learning Tree's tested and frequently evaluated curricula to conduct workshops for educators. Statewide education reforms, including specific recommendations related to the quality core curriculum and character education mandates, are incorporated into the workshops.

PIEDMONT PARK CONSERVANCY - \$4,500  
KENDRA COTTON, P.O. Box 7795, ATLANTA, GA 30357

*Piedmont Park Outdoor Environmental Education Center*

The program takes students out of their traditional classrooms to learn and study in one of Atlanta's oldest and most environmentally diverse public parks. The program is being expanded to include all public schools in Atlanta, Boys and Girls clubs, scouting organizations, private after-school programs, and other youth groups. The program is designed to teach students the value of parks to a community and promote respect for our environment. Students study various aspects of atmosphere, biology, land and soil, horticulture, and water, at levels appropriate to each grade. They also learn about the necessity that all citizens act wisely to preserve and protect the green spaces of parks while they enjoy the wonders of the park and nature.

STEPHENSON HIGH SCHOOL - \$5,000  
LILLIAN JOHNSTON, 701 STEPHENSON ROAD, STONE MOUNTAIN, GA 30087

*Interactive Education: Outdoor Classroom*

During the past two years, Stephenson High School, with support from local businesses and the community, has built an interactive outdoor classroom. The project expands that effort and involves students and teachers in various subject areas, thereby promoting interdisciplinary learning. Students apply scientific skills to collect, analyze, and process seismographic data associated with the Norris-Lake fault line, identify the nutrients in soil, scrutinize nearby streams and creeks to determine the effects of increased construction of housing in the area on water quality, and participate in the construction and management of two heated greenhouses and one seasonal shaded greenhouse with a fresh-water pond habitat. The ultimate goal for the projects is to enhance students' test scores by providing them practical, hands-on experiences, as well as to introduce them to careers in environmental fields.



SOUTHEASTERN NATURAL SCIENCES ACADEMY - \$4,650  
ELISABETH SCHHUSSLER, 540 B TELFAIR STREET, AUGUSTA, GA 30901

#### *Educational Kit Loan Program*

The Southeastern Natural Sciences Academy is developing and operating Phinizy Swamp Nature Park. The focus of the park's environmental education program is the school tour. The purpose of the project is to assemble 32 loan kits that specifically correlate with the tours offered at Phinizy Swamp Nature Park and to make those kits available to teachers in the area who book tours at the park. Loan kits are developed in four areas: wetland habitats and organisms, watersheds and pollution, stream ecology, and health and wastewater and drinking-water issues. Each loan kit contains established curricula, such as books or videos, supplies for classroom activities, and information about careers. The instructions include specific outlines and planning guides for using the kits for various lengths of time, providing flexibility and ease of use. The loan kits are made available during the week of their scheduled field trip to enhance the value of the students' visit to the nature park.

VINES BOTANICAL GARDENS FOUNDATION, INC. - \$5,000  
AARON PAULSEN, 3500 OAK GROVE ROAD, LOGANVILLE, GA 30052

#### *Nature's World Wide Web*

Vines Botanical Gardens Foundation is a non-profit organization, the mission of which is to promote gardens and gardening as a means of returning to and promoting better understanding of the environment. The program Nature's World Wide Web, offered to the students of metropolitan Atlanta, emphasizes the elements of an ecosystem and the roles that both living and non-living elements play in keeping an ecosystem intact. The project provides opportunities for elementary students from low-income families in Gwinnett County, Georgia to visit the gardens and to participate in the program.

## HAWAII

HAWAII NATURE CENTER - \$22,600  
DIANA KING, 2131 MAKIKI HEIGHTS DRIVE, HONOLULU, HI 96822

#### *Pouhala Marsh Educational Field Test*

The project includes a field test of a wetland education field program at a marsh recently purchased by the state of Hawaii to serve as a bird sanctuary. The Hawaii Nature Center currently operates a highly successful wetland education field program for third graders at the Honouliuli Wildlife Refuge operated by the U.S. Fish and Wildlife Service, U.S. Department of the Interior, on the island of Oahu. For the 77 days during which the federally listed endangered black-necked stilt is not nesting and during which field trips can be scheduled, such field trips are booked completely. The new site for wetland education is home to all four federally listed endangered water birds. The program at the new wetland site provides an interactive introduction, hands-on activities, and a take home activity for students.

## IDAHO

BOISE STATE UNIVERSITY, DEPARTMENT OF BIOLOGY - \$5,000  
RICHARD MCCLOSKEY, BOISE STATE UNIVERSITY, DEPARTMENT OF BIOLOGY, BOISE, ID 83725

#### *Meeting Idaho Comprehensive Literacy and Reading Directives*

Under the project, an approved comprehensive literacy course based on environmental literature is developed. The course incorporates environmental education literature into the curricula for kindergarten through grade 3. Through a variety of workshops, teachers are trained in using the environmental education



literature. During the workshops, the teachers have the opportunity to field-test segments of the course and become involved in environmental education investigations and hands-on activities related to the literature. Teachers have the opportunity to meet requirements for certification, and both teachers and students explore scientific literature, examine issues, and develop skills in scientific reasoning.

IDAHO FOREST PRODUCTS COMMISSION (EEAO), PROJECT LEARNING TREE - \$12,649

MICHELLE YOUNGQUIEST, 350 NORTH 9TH STREET, SUITE 304, BOISE, ID 83702

#### *Correlation of Projects Learning Tree, WET, and WILD to Meet Idaho State Education Standards*

The Idaho Forest Products Commission correlates the projects (the Project Learning Tree, Project WET, and Project WILD environmental education curricula) to Idaho's new state education standards and distributes the correlations to schools and educators throughout the state. The correlation also serves as a model for other environmental education providers throughout the state, who are encouraged to add their programs' correlations to ultimately compile a comprehensive integrated correlations document.

## ILLINOIS

*See page 4 for a profile of a grant awarded to the Environmental Education Unit, CHA by EPA Headquarters.*

INTERSTATE RC&D - \$5,000

MARK JACKSON, 3020 EAST FIRST AVENUE, MILAN, IL 61264

#### *Outdoor Nature & Environmental Education*

The Outdoor Environmental Education Program of Interstate RC&D provides teacher training and hands-on experiential learning activities for 2,000 students in grades 3 through 8. It is intended to give students and teachers a basic understanding and knowledge of plant and animal communities native to northwestern Illinois and eastern Iowa. The students are instructed in the wise use and management of local natural resources.

MIDAMERICA LEADERSHIP FOUNDATION - ECOVIDA - \$4,990

ALICIA GUTIERREZ, 1840 SOUTH THROOP STREET, CHICAGO, IL 60608

#### *Ecological Pilot Program at Manuel Perez Elementary School*

In partnership with the Manuel Perez Elementary School, Heifer Project, and Community Supported Agriculture of Angelic Organics, Ecovida implements aquaculture, vermiculture, organic gardening, and various other programs that focus on themes related to ecology at Manuel Perez Elementary School. The project is a pilot program during the 2001-2002 school year.

PEGGY NOTEBAERT NATURE MUSEUM OF THE CHICAGO ACADEMY OF SCIENCES - \$22,700

RAFAEL ROSA, 2060 NORTH CLARK STREET, CHICAGO, IL 60614

#### *Chicago Del Sol*

Chicago Del Sol is a pilot project that teaches environmental science to elementary students through an innovative technology initiative promoted by the city of Chicago. The academy works in partnership with Reilly Elementary School, the first public school in Chicago to install solar panels. At least four solar energy activities geared toward students in grades 4 through 6 are developed and posted on a web site. In addition, a live web chat is developed to allow students to talk on line with experts in solar energy.



THORNTON FRACTIONAL TOWNSHIP HIGH SCHOOL - \$5,000  
ROBERT WILHITE, 1601 WENTWORTH AVENUE, CALUMET CITY, IL 60409

*Prairie Heritage Project: Reestablishing a Native Illinois Sand Prairie*

The science department of Thornton Fractional Township High School plans to use the Prairie Heritage Project to help students reestablish links to their communities' natural heritage. Thornton's environmental club completes the initial phases of the project before the school year begins. The land also is used as a classroom without walls and a demonstration site for neighboring communities. During the school year, students in freshman biology classes participate in reclaiming land, monitoring changes, and learning about the role of prairie environments in a healthy ecosystem.

## INDIANA

HUNTINGTON COUNTY COMMUNITY SCHOOLS - RIVERVIEW MIDDLE SCHOOL - \$4,580  
JULI WERTH, 2465 WATERWORKS ROAD, HUNTINGTON, IN 46750

*Soils Learning Center*

Approximately 200 sixth-grade students at Riverview Middle School begin the 2001-2002 school year by learning about soils so that they can help create a soils learning center laboratory. The laboratory is designed to accomplish the following goals: (1) teach students to see the soils as a living system, (2) educate students about processes that form soil, and (3) demonstrate the role of soil in the hydrologic cycle.

JOHNSON COUNTY SOLID WASTE DISTRICT - \$4,960  
MEGGAN WALKER, 755 EAST HAMILTON AVENUE, FRANKLIN, IN 46131

*District Mascot*

Johnson County uses a robotic dog as a district mascot and teaching tool for an environmental education program focused on solid waste management, with a particular emphasis on waste reduction. Teachers and students in Johnson County are the primary audience of the program, and approximately 75 presentations are given throughout the county. In addition, the dog visits the annual conference of the Hoosier Association of Science Teachers and a meeting of the Indiana Environmental Education Association and takes part in an interactive workshop to be presented at a conference of the Indiana Recycling Coalition.

MARIAN COLLEGE - \$23,049  
RON WEISS, 3200 COLD SPRING ROAD, INDIANAPOLIS, IN 46222

*What is an Environmental Scientist?*

On the campus of Marian College, approximately 125 eighth graders and 60 ninth graders address crucial questions about the ecological importance of wetlands and examine the ways in which career environmentalists operate. The students participate in a workshop on wetlands, during which they engage in hands-on experiences in the methods and procedures environmental scientists use in evaluating wetlands. Faculty of Marian College and that institution's students of environmental science facilitate the workshop.



## IOWA

CONSERVATION DISTRICTS OF IOWA - \$4,285

CINDY BLOBAUM, 3829 71ST STREET, SUITE F, URBAN DALE, IA 50322

### *Bridging the Gap*

High school students attend a one-week residential environmental summer camp. During the camp program, the participants experience working with professionals. Students develop lifelong skills and contacts. Acting as mentors, the professionals stimulate the students' interest in environmental careers. Students participate in a variety of activities, such as rehabilitation of prairie habitats, monitoring of water quality, forestry management, geologic sampling, bird banding, and similar activities. Among the environmental professionals assisting the students are college professors, foresters, wildlife biologists, aquatic ecologists, wildlife rehabilitators and naturalists. The summer camp program is designed to accomplish three learning outcomes: (1) establishment of mentoring relationships, (2) exploration of environmental careers, and (3) exposure to environmental education.

FORT DODGE COMMUNITY SCHOOLS - \$4,882

ROD HUISMAN, 104 SOUTH 17TH STREET, FORT DODGE, IA 50501

### *Brushy Creek Field Lab & Research Project*

The project brings educators to a natural setting to train them in conducting field research with their students. Teachers learn new strategies and skills for implementing and practicing when they teach students outside the classroom. The goal of the project is to move students from the classroom into nature to learn about their environment. The project introduces students to careers in science that extend beyond the boundaries of the classroom. Students gain knowledge and awareness of the diverse ecosystem around them. The project increases students' interest in science, mathematics, and technology by providing them with the opportunity to conduct research in an outdoor environment.

IOWA DEPARTMENT OF NATURAL RESOURCES - \$5,000

COREY MCCOID, 7900 HICKMAN ROAD, SUITE 1, URBAN DALE, IA 50322

### *Air Quality Educational Broadcasts*

The Iowa Department of Natural Resources is expanding its current educational television broadcast in central Iowa to a television station in eastern Iowa. The goal of the project is to increase public awareness of issues related to air quality in eastern Iowa through broadcast media. The project accomplishes that goal by educating television viewers about the threats posed to human health by air pollution and the consequences of the activities of individuals. The project also provides tips on approaches to daily activities that both save money and reduce air pollution.

KEOKUK COUNTY EXTENSION - \$5,000

GARY BICKMEIER, 102 EAST WASHINGTON, SIGOURNEY, IA 52591

### *Environmental Education Camps*

The project provides summer activities for 150 children, ranging in age from 7 to 13. The summer camp program teaches the importance of environmental stewardship through hands-on activities. Students also participate in a three-hour program conducted by the Keokuk County Conservation Board and the director of the camp. The program teaches youth the relationship between pollution and environmental threats to both animals and plants. Students participate in a five-hour program that combines instruction and practice in fishing with training on the effects of pollution on fish and on private and community sources of water. The students learn about methods of conserving water resources and develop knowledge and skills that will assist them in recognizing and correcting pollution.



KIRKWOOD COMMUNITY COLLEGE - \$5,000

MIKE MARTIN, 6301 KIRKWOOD BOULEVARD, CEDAR RAPIDS, IA 52406-2068

### *Trees for Learning*

Students prepare a container nursery featuring placarded trees of 90 varieties. Students from local schools and members of the community visit the campus of Kirkwood for one-hour field trips to use the container nursery to practice tree recognition and learn about horticultural solutions to environmental challenges. Two-hour field trips also are scheduled; during those longer programs, students and community members identify the college's horticultural practices and the tree plantings. Kirkwood's professors of horticulture lead the learning experiences. Trees similar in species to those in the container nursery are placed throughout the Kirkwood campus. As trees outgrow their containers, they also are placed on campus. Students use geographic information system (GIS) mapping technology to map trees on campus. Students and visitors test their ability to name trees by species and influence on the environment by identifying similar unmarked trees on campus. The project educates students in kindergarten through grade 12 and members of communities in eastern Iowa about various tree species and the environmental benefits provided by a wide variety of trees when they are placed and used in a manner that is environmentally sound. The project also provides students and members of those communities the opportunity to engage in hands-on learning in the community.

POLK COUNTY AGRICULTURAL EXTENSION DISTRICT - \$24,990

BARBARA HUG, 5201 NE 14TH STREET, SUITE A, DES MOINES, IA 50313

### *Water-Friendly Landscapes*

The project has two purposes: (1) to educate homeowners and renters about landscaping practices that conserve and protect soil and water and (2) to educate youth and homeowners about non-point source pollution of area waterways and about ways to protect and conserve water supplies. Phase 1 of the project educates participants about integrated pest management practices. To accomplish that goal, staff of the Extension office conduct group meetings, web-based classes provide opportunities for self-instruction, and written materials are distributed. The participants use practices that promote good water quality and conservation to construct an environmentally safe landscape. A yard sign is placed at the project site to attract the attention of neighbors, and the landscape is used as a teaching resource to encourage people in the neighborhood to participate in the program or to use the practices on their own initiative. Phase 2 of the project educates homeowners and renters in how to reduce non-point source pollution of area waterways and how to protect and conserve water supplies. Homeowners perform soil tests on their lawns to identify pollutants. Educational materials educate youth audiences about water and watershed pollutants.

## **KANSAS**

*See page 4 for a profile of a grant awarded to the Kansas Association for Conservation and Environmental Education by EPA Headquarters.*

KANSAS STATE UNIVERSITY - \$24,225

DAN KAHL, 2 FAIRCHILD HALL, MANHATTAN, KS 66506-1103

### *Water Quality Workshops*

The project educates 100 adults about water quality in two Kansas watershed regions: northeastern and north-central Kansas and southeastern and south-central Kansas. In each region, a workshop provides participants the opportunity to explore local water resources and increase their knowledge about water quality in their watersheds. Participants prepare themselves to take responsible action by learning about





total maximum daily loads (TMDL) and other tools for assessing and protecting water quality. The workshops encourage the development of collaborative partnerships to address local issues related to water quality and the protection and use of water. The workshops include field trips in the watershed, hands-on interactive lessons, models, videos, guest presentations, and small group activities.

KANSAS WILDLIFE FEDERATION - \$8,765

KELLY HIESBERGER, P.O. Box 242, ROUTE 1, SYLVAN GROVE, KS 67481

*Kansas Wildlife Federation — Outdoor Adventure Camp*

The project involves 50 children, ranging in age from 10 to 12 years. During a one-week environmental education camp, the children learn about local natural resources by exploring and experiencing natural resources through workshops and activities that promote hands-on learning. During the summer, students participate in six workshops focusing on environmental careers, learning about those careers and interacting with professionals who work in various environmental fields. Participants are introduced to a variety of educational programs and workshops. Students learn about environmental issues that affect the health of the natural systems in their communities. Groups of eight students attend field trips, during which they participate in the daily activities of the professionals. Students receive training in the use of equipment and have the opportunity to collect and analyze water samples, investigate habitats and ecosystems, visit a fish hatchery and nature center, and learn how to differentiate between point source pollution in water and non-point source pollution.

WICHITA PUBLIC SCHOOLS - \$4,850

TERRY BEHRENDT, 201 NORTH WATER, WICHITA, KS 67202-1292

*Environmental Studies*

The project involves 3,000 students in grades 4 through 12 who are taught environmental science during a field trip to Great Plains Nature Center (GPNC). GPNC's naturalists instruct the students in the use of microscopes and binoculars in observing wildlife. Participants observe the wildlife, gather data, and gather specimens for more detailed examination.

## KENTUCKY

VERSAILLES MONTESSORI SCHOOL - \$20,985

PEG SNYDER, 480 PINCKARD PIKE, VERSAILLES, KY 40383

*Development and Statewide Distribution of an Environmental Recycling Video - "The 4 R's"*

The project provides environmental education opportunities to elementary students and adults in Kentucky through several activities. Segments are added to the video "The 4 R's: Reduce, Reuse, Recycle, & Rebuy" that was produced by the school's elementary class. The video may be reproduced by any school. Students develop a pamphlet that describes the school's recycling and composting center and distribute it to other schools in the state. The school also develops student activities and sample lessons teachers can incorporate into their curricula. The activities and lessons are geared to helping students learn to make informed decisions and strengthen their problem-solving skills. Those materials also are made available to other schools.



## LOUISIANA

CENLA PRIDE - \$5,000

BETTYE JONES, 1014 THIRD STREET, ALEXANDRIA, LA 71301

### *Teacher In-Service on Community Water Quality & Conflict Resolution*

During two in-service workshops, teachers learn how to gain access to local water quality resources and how to conduct hands-on activities with their students. Interactive plastic topographical models and enviroscares are used to demonstrate the results of non-point source pollution and stormwater runoff and the importance of wetlands. The curriculum Waste In Place, which addresses the Louisiana State environmental education benchmarks by grade level, is used. The conflict resolution program Kid's Bridge proves beneficial in a neighborhood that is 51 percent minority.

LOUISIANA NATURE CENTER - \$3,348

BOB MARYE, P.O. BOX 8700610, NEW ORLEANS, LA 70187

### *Environmental Health Month*

The Louisiana Nature Center conducts three programs that focus on health and the environment. Topics include water quality, household environmental hazards, poisonous plants, venomous animals, pest-vectored diseases, ozone depletion, and ultraviolet radiation and skin cancer. The goal of the programs is to offer information, critical-thinking tools, and problem solving skills a family and its individual members need to reduce environmental health risks. Programs are designed for all age groups and include displays, exhibits, talks by local experts, health screenings, and crafts and games.

LOUISIANA TECH UNIVERSITY - \$17,500

GLENN BEER, P.O. BOX 3163, LINCOLN PARISH, LA 71272

### *The IDEA Place Mystery Zone Litter Project*

The project is designed specifically to provide teachers a tool for use in presenting concepts related to mathematics and science in real-world applications that require students to apply content knowledge. Students adopt a location at which they can research dumping practices. Every two weeks for three months, the students collect litter from those adopted locations. The students then use tables, graphs, and other means of displaying data to study the collected litter to determine its amount and content and identify possible sources. Students prepare a final report on their findings for presentation to officials of their communities.

NUNEZ COMMUNITY COLLEGE - \$5,673

SHARON FLANAGAN, 3710 PARIS ROAD, CHALMETTE, LA 70043

### *Resource Efficiency for the Millennium*

Resource Efficiency for the Millennium is a series of community-based workshops for homeowners and small businesses. The workshops are forums for the dissemination of information about improvement of energy efficiency, wise use of water, tree and lawn plantings, and efficient automotive fuels. Under the project, four workshops are offered for citizens of southeastern Louisiana. During the workshops, experts representing the local power company, the local water company, parish water departments, and the Louisiana Cooperative Extension Service, along with experts in the use of automotive fuels and alternative fuels, present interactive sessions. It is anticipated that, as local citizens become better informed about such issues, pollution will be reduced and stewardship for the environment will increase.





## MAINE

*See page 5 for a profile of a grant awarded to the University of Maine by EPA Headquarters.*

MORRIS FARM TRUST, INC. - \$14,700

CRISTINE JAMES, P.O. BOX 136, WISCASSET, ME 04578

### *Ecological Forestry & Agriculture for Rural Maine (Eco-FARM)*

In partnership with many organizations, the Morris Farm Trust works with teachers to use the farm's facilities, property, and operations to explore such concepts as sustainable agriculture, forest ecology, energy efficiency, and management of natural resources, while meeting the educational frameworks established by the state of Maine. Through several learning projects, students find real solutions to real challenges that confront farm operations.

## MARYLAND

*See page 5 for a profile of a grant awarded to the Maryland Department of Natural Resources by EPA Headquarters.*

CALVERT COUNTY PUBLIC SCHOOLS - CHESAPEAKE/PATUXENT - \$17,250

THOMAS HARTEN, 1305 DARE'S BEACH ROAD, PRINCE FREDERICK, MD 20678

### *Wild Beaches: A Performance-Based Unit*

The goal of the project is the development of a third-grade curriculum on wild beaches. The students learn about the important types of habitat in the natural beach ecosystem of the Chesapeake Bay and learn how to take action to protect those fragile environments. The program reaches approximately 1,130 students.

PATUXENT RIVER 4-H CENTER - \$8,220

JEFFREY PIATT, 18405 QUEEN ANNE ROAD, UPPER MARLBORO, MD 18405

### *West Nile Virus Awareness Project*

The project is intended to educate students and community groups in southern Maryland about the West Nile Virus. Participants learn about mosquitoes, including their life cycle, how they bite, how and where they breed, and how they spread the virus. By obtaining complete and accurate information about the potentially deadly virus, members of local communities can protect themselves against it.

## MASSACHUSETTS

*See page 6 for a profile of a grant awarded to Massachusetts Youth Teenage Unemployment Reduction Network, Inc. by EPA Headquarters.*

BRISTOL COMMUNITY COLLEGE - \$10,000

ELIZABETH PALTER, 777 ELSBREE STREET, FALL RIVER, MA 02720

### *Improving Water Quality and Protecting Wetlands*

A series of 10 forums featuring expert presenters and panelists provides educational experiences in the development and implementation of sound water quality and wetland protection measures for the watershed region of southeastern Massachusetts.



COMMUNITY FOUNDATION OF SOUTHERN MASSACHUSETTS - \$5,000  
ANNE BEAULIEU, 227 UNION STREET, SUITE 609, NEW BEDFORD, MA 02740

*The Southeastern Environmental Education Alliance (SEEAL) Watershed Expedition*

The 23-member organization strives to encourage environmental awareness and stewardship in the area, with a particular emphasis on protection of the watershed. Urban high school students and teachers work together on a five-day program that explores the environmental issues that affect the Acushnet, Slocum, and Paskemanset rivers; Aponagansett and Cedar swamps; and Turner Pond. Students use topography maps, charts, and GIS information to examine habitats to advance the protection of drinking-water supplies and to study watersheds and salt-water estuaries, as well.

EARTHWORKS PROJECTS, INC. - \$5,000  
LAURA DOTY, 34 LINWOOD STREET, ROXBURY, MA 02119

*Schoolyard After-School Program*

Earthworks strives to create a healthy, sustainable urban environment through neighborhood and school-based tree plantings and environmental education programs. Earthworks expands its after-school gardening program to three additional urban elementary schools. The schoolyard orchards curriculum used in the program meets the requirements of the state science frameworks and learning standards.

MERRIMACK RIVER WATERSHED COUNCIL - \$10,419  
BETH BRAZIL, 181 CANAL STREET, LAWRENCE, MA 01842  
(Project in Manchester, New Hampshire)

*The Pilot Teacher Training Project (PTTP)*

Under the project, three workshops are held for at least 20 eighth-grade educators in Manchester, New Hampshire. The workshops prepare the teachers to implement the Merrimack River MATTERS (Manchester Actions That Totally Enhance River Systems) environmental education curriculum.

MYSTIC RIVER WATERSHED ASSOCIATION, INC. - \$5,000  
GRACE PEREZ, 20 ACADEMY STREET, SUITE 203, ARLINGTON, MA 02476

*New Century Environmental Leadership Institute (NCELI)*

The Mystic River Watershed Association formed the NCELI, along with Tufts University. The goal of the institute is to equip participating students with the tools they need to become professionals and leaders in research and policy development related to the restoration of watersheds and in environmental education. The effort develops in students a richer and more complex understanding of the responsibilities of environmental professionals and the challenges they face.

NORTHEAST SUSTAINABLE ENERGY ASSOCIATION - \$5,000  
CHRIS MASON, 50 MILES STREET, SUITE 3, GREENFIELD, MA 01301  
(Project in Philadelphia, Pennsylvania)

*Educator's Conference: Energy and the Environment*

Under this project, a two-day educator's conference is held for more than 42,000 educators throughout the mid-Atlantic states and New England. The conference takes place in the Philadelphia, Pennsylvania area. The program of the conference emphasizes encouragement of pollution prevention by influencing teachers' technological choices and consumer behavior in heating, lighting, and transportation. Programs conducted



during the conference also encourage teachers to engage students in quality environmental education through the use of educational resources and programs that focus on the themes of energy efficiency, renewable energy, clean transportation technologies, and consumer energy.

QUEBEC-LABRADOR FOUNDATION - \$12,000

CANDACE COCHRANE, 55 SOUTH MAIN STREET, IPSWICH, MA 01938

(Project in Washington County, Maine)

*The Bays Stewardship Network*

The project encourages a sense of environmental stewardship of Cobscook and Passamoquoddy bays. Under the project, 100 teachers and students in at least seven communities in Washington County, Maine and New Brunswick, Canada are expected to participate in training workshops and research projects related to environmental issues that affect the bays.

ST. JOSEPH'S SCHOOL - \$4,095

STEVEN PERDIOS, 555 WASHINGTON STREET, QUINCY, MA 02169

*Earth Week 2002 in Quincy, Massachusetts*

The city of Quincy hosts an Earth Week to educate the community and students about the environmental and health issues that affect their city. Each of three schools hosts one of the three major events planned for the week. Some of the activities include: a Whale Day that focuses on protection of ocean life and forests, a Yard Day that focuses on disposal of hazardous wastes and protection of the environment in the home yard, and a day on which a cleanup of the islands in Boston Harbor and a review of the history of those islands are the principal activities.

SHARON PUBLIC SCHOOLS - \$5,000

EMILY NORTON, 1 SCHOOL STREET, SHARON, MA 02067

*Environmental Education Through Field Research*

This project introduces and integrates outdoor environmental education through field research or outdoor education for students in grades 3, 5, 7, and 10. Organizers of the project also develop a strategy for incorporating environmental education into the 10th-grade biology curriculum, provide training for secondary and elementary teachers, and use a variety of media to increase awareness of the local natural environment among students and members of the community.

SOUTH SHORE NATURAL SCIENCE CENTER - \$8,142

SUSAN CRONIN, JACOBS LANE, NORWELL, MA 02061

*Willow Brook Farm Preserve: A Community Resource*

The science center, along with the town of Pembroke, develop an environmental program at the Willow Brook Farm Preserve that provides professional development workshops and activities for teachers. More than 400 third- and fourth-grade students also are expected to participate, along with their parents or chaperones.

SOUTHEASTERN REGIONAL PLANNING AND ECONOMIC DEVELOPMENT (SRPEDD) - \$4,784

STEPHEN SMITH, 88 BROADWAY, TAUNTON, MA 02780

*Youth Involved in Community Planning Partnership with Taunton Boys and Girls Club*

Through an after-school program for students ages 10 through 13, SRPEDD, along with the Boys and Girls Club of Taunton, offer a series of hands-on learning experiences focused on land use planning. Examples from the students' own community are used in the program.



TRITON REGIONAL SCHOOL DISTRICT - \$5,000  
JANET RITCHEY, 112 ELM STREET, BYFIELD, MA 01922

*Newbury Elementary School Environmental Education Project Outdoor Classroom*

An outdoor classroom is developed at Newbury Elementary School to provide learners an opportunity to undertake an inquiry approach to acquire knowledge and skills that allows them to develop lifelong appreciation of the environment. A pumpkin patch, a butterfly garden, and a birdhouse area are planned for the outdoor classroom, and a composting program is established.

WESTPORT RIVER WATERSHED ALLIANCE (WRWA) - \$5,000  
GAY GILLESPIE, 1151 MAIN ROAD, WESTPORT, MA 02790-0703

*Watershed Education Program (WEP): Grade 5 Dune Grass Restoration Field Study*

WRWA focuses on promoting environmental integrity, advocating stewardship of the watershed's natural resources, and educating the public about the interrelationships among water, soils, plants, animals, and people. WRWA has developed the WEP and worked with the Westport schools to incorporate the curriculum into the school system. WRWA is expanding the WEP curriculum to include a field study program for students in grade 5 that provides hands-on, field-oriented, and applied learning opportunities outside the classroom. More than 150 students, 20 parents, and 6 teachers are expected to participate in the expansion.

## MICHIGAN

*See page 6 for a profile of a grant awarded to Ypsilanti Public Schools by EPA Headquarters.*

LIBERTY CHILDREN'S ART PROJECT - \$5,000  
PAUL OLSON, 42 IRON STREET, NAGAUNEE, MI 49866

*Partridge Creek Nature Park Environmental Education*

Students from the Negaunee Middle School work with artists and environmental educators at Partridge Creek Nature Park to design and create glazed ceramic plaques that explain significant environmental features of the park. The park then is decorated with the tiles.

MICHIGAN STATE UNIVERSITY (MSU) - \$5,000  
KENDRA GUNTER, 836 FULLER, NE, GRAND RAPIDS, MI 49503

*Land-Use Learning Series*

MSU and its partners compile existing educational materials related to land use into a land-use learning series for upper elementary students (in grades 4 and 5) and train teachers in using the materials in their classrooms. The series are an interactive educational experience through which teachers and students learn about land-use planning and decision-making in their communities. It conforms to the Michigan curriculum framework standards. Topics include: the role of local government in land-use planning and the effects of land-use decisions on the environment. Participants develop basic map-making skills as they survey local neighborhoods.

WILDLIFE UNLIMITED - \$17,050  
TRAVIS WILLIAMS, P.O. BOX 1975, HOLLAND, MI 49422

*Outdoor Discovery Center — Dune Ecosystems*

The Dune Ecosystem project provides 50 high school students with the opportunity to work as a team and participate in environmental investigation and in the restoration and preservation of habitats. Under the project, a functioning natural outdoor classroom is established on the property of the 100-acre Outdoor Discovery Center Preserve. Both students and teachers develop designs for interpretive trails and interpretive panels at the outdoor classroom, which are available for use by students, adults, and families.



## MINNESOTA

ECO-EDUCATION - \$25,000

KATHY KINZIG, 275 EAST FOURTH STREET, #821, ST. PAUL, MN 55101

### *Model Schools in Urban Environmental Education*

Teachers from schools in Minneapolis and St. Paul are trained to deliver urban environmental education models through Eco-Education's existing Model Schools in Urban Environmental Education Initiative. Teachers of grades 5 through 8 participate in workshops designed to build their knowledge of current urban environmental issues and the ability to apply that knowledge in their classrooms.

HENNEPIN CONSERVATION DISTRICT - \$4,550

TIM REESE, 9600 WEDGWOOD ROAD, #140, MAPLE GROVE, MN 55311-3541

### *Wetland Health Evaluation and Education Project*

To educate citizens about the function and value of wetlands and to foster public awareness and citizen involvement, the Hennepin Conservation District is organizing and training a minimum of three teams of citizen volunteers. The three teams are made up of adult and teen volunteers. Training sessions are conducted to teach the teams how to sample and analyze plant and invertebrate communities in four wetlands. The testing gives resource managers a clearer picture of what constitutes a healthy wetland ecosystem and gives the district a reference for comparison, analysis, restoration, and mitigation efforts.

MINNESOTA LAKES ASSOCIATION - \$5,000

PAULA WEST, P.O. BOX 321, BRAINERD, MN 56401

### *Educating Today's Youth to be Tomorrow's Stewards*

Using the existing curriculum Interactive Lake Ecology, students in grades 5 and 6 learn how to be responsible stewards of the lakes that are, and will remain, crucial factors in their future well-being. The curriculum covers basic information about lake ecology, including properties of water, food chains, watersheds, pollution, and more. The project targets 500 students and from 20 to 25 teachers in at least five schools.

MINNESOTA POLLUTION CONTROL AGENCY - \$21,725

SANDEEP BURMAN, 520 LAFAYETTE ROAD, ST. PAUL, MN 55155

### *Karst Education Project*

The Minnesota Pollution Control Agency is hosting two-day workshops for elected state and local officials, educators, citizens, and the regulated community. The four workshops enhance understanding of the vulnerability of water resources in a sensitive geologic setting. The project promotes and facilitates the adoption of decisions and practices at the local government and community levels that protect the environment and human health in those vulnerable areas. The project begins a self-sustaining process of collaboration, information-sharing, and decision making. Included in the workshop are a half-day field trip to nearby sites at which karst geology and hydrogeology are apparent, as well as sites at which karst problems are occurring and sites at which such problems have been remedied.

PRAIRIE ECOLOGY BUS CENTER - \$5,000

CHRYSTAL DUNKER, P.O. BOX 429, LAKEFIELD, MN 56150

### *Water Wonders Ecology Bus*

Through the project, the Prairie Ecology Center's Ecology Bus is available to approximately 1,500 students in grades 4 through 12 and their teachers. Both students and teachers have an opportunity to take part in hands-on, problem-based education programs about aquatic resources in their communities. Naturalists



use the bus to transport students from their schools to nearby natural areas. Educators teach about aquatic systems and provide information about the water cycle and water quality. The program can be duplicated easily throughout Minnesota and in other states.

ST. PAUL NEIGHBORHOOD ENERGY CONSORTIUM - \$5,000  
JoANNE PETERS, 624 SELBY, ST. PAUL, MN 55104

#### *Multicultural Recycling Outreach*

The project promotes recycling and makes information about recycling available to St. Paul's Hmong and Hispanic communities. The project's goals include: 1) increasing recycling rates by making recycling accessible to diverse communities, 2) building relationships with both communities to facilitate efforts to meet their needs, and 3) testing an outreach model for reaching other communities. Approximately 35,000 residents have access to the outreach information.

## MISSISSIPPI

MISSISSIPPI FORESTRY COMMISSION - \$1,400  
HAROLD ANDERSON, 301 NORTH LAMAR STREET, SUITE 300, JACKSON, MS 39201

#### *Correlation of Project Learning Tree Activities with the Mississippi State Curriculum*

Project Learning Tree is a nationally recognized environmental education program. Its activity guide is correlated to Mississippi's science and social studies curricula. The Mississippi Department of Education is revising the state curriculum. The project correlates Project Learning Tree activities with the new curriculum, posts the activities on the Mississippi Project Learning Tree web site, and produces 20,000 bookmarks that advertise the web site and the new document. The bookmarks are given to public school librarians for distribution to teachers.

## MISSOURI

CHILLICOTHE MIDDLE SCHOOL - \$5,000  
NANCY ELLIOTT, 1529 CALHOUN, CHILLICOTHE, MO 64601

#### *Environmental Careers Project*

The project introduces sixty-five students in eighth grade to environmental careers. Students become involved in hands-on investigative problem solving in the classroom, in after school workshops, and during a two-week summer institute. Students also become involved actively in field experiences that allow them to practice skills necessary for such professions and work with professionals. They also participate in job shadowing. For the classroom, after-school, and summer institute components of the project, units that begin with an environmental problem scenario are used. In the classroom, students work on five-day units. The after-school workshops and the summer institute involve two-hour investigations. Units are built around curricula found in Project Learning Tree, Project Wet, Project Wild, and Aquatic Wild. The students attend field trips during which they participate in water monitoring for water quality and sampling and testing of soil. Students participate in an Earth Day play that they present for parents and other students. They also organize an environmental carnival, during which environmental games reinforce environmental stewardship.

FRIENDS OF LAKESIDE NATURE CENTER - \$1,500  
LARRY O'DONNELL, 4701 EAST GREGORY, KANSAS CITY, MO 64132

#### *Water Quality Testing — Blue River Watershed*

The project introduces 30 high school students to the watershed of the Blue River. Students are provided classroom instruction on watershed dynamics. Through hands-on testing of biological and chemical water quality at four sites four times during the school year, students gather data; interpret data; determine





whether there is a problem related to water quality; and, if so, propose possible solutions to the problem. Two of the test sites are above and below a tributary of the Blue River in Kansas City. The students sample for fecal coliform contamination and learn how to evaluate data and test their results.

GREENE COUNTY R-8 SCHOOL DISTRICT - \$2,003

ANDREW KINSLOW, 8225 EAST FARM ROAD 174, ROGERSVILLE, MO 65742

*Citizen Science: Monitoring Avian Productivity and Survivorship (MAPS)*

Under the MAPS project, 10 students in grades 9 through 12 participate in field research related to bird populations. Students perform both habitat and banding field research. The research period is divided into 10-day segments. Students meet in the classroom once during each 10-day period and are provided background information about birds, analysis of habitats, careers, and various environmental topics. Students perform field research once during the ten-day period, setting nets at the banding site. Captured birds are banded, weighed, measured, and released. The information the students collect is used to assess bird populations and the health of the environment. Because birds are excellent indicator species for assessing the health of the environment, they can serve as a means of evaluating the condition of their habitats. The students enter the data they have collected into a computer for compilation and submittal to the Institute for Bird Populations. Participation in the MAPS project gives the students the opportunity for first-hand exploration of environmental careers.

KANSAS CITY HARMONY, INC. - \$4,070

VICKI RICHMOND, 2700 EAST 18TH STREET, KANSAS CITY, MO 64127

*Ecological Diversity Project*

Community leaders, corporate partners, and formal and informal educators are recruited and trained to educate students and community and corporate groups about the Blue River Glade property, a designated natural area located in the urban core of Kansas City. Participants use the biology of the habitat as a mirror for human communities. The project is intended to instill in participants an appreciation for diversity, heritage, and ecology, and meets state standards for education. The project breaks down barriers by bringing together ethnically, culturally, and economically diverse people through environmental stewardship and education about the Blue River Glade.

MISSOURI BOTANICAL GARDEN - \$5,000

CELESTE PRUSSIA, P.O. BOX 299, ST. LOUIS, MO 63166-0299

*Sustainability 2001: A Community Education Conference*

The community education conference Sustainability 2001 improves and enhances the environmental education teaching skills of participating teachers, informal educators, and community leaders. Sustainability has become a prominent element in addressing issues that relate environmental health to economic viability and provide for the social longevity of a community. Participants develop an understanding of the concept of sustainability and experience activities related to sustainability activities that they may use in their classrooms or other learning environments. In addition, participants identify ways in which they can integrate sustainability into their curricula, programs, and personal lives.

PUBLIC TELEVISION 19, INC. - \$13,971

KAREN MELL, 125 EAST 31ST STREET, KANSAS CITY, MO 64108

*Captain Olin's Odyssey — An Environmental Journey*

The project expands and enhances an innovative environmental education program. The program combines Internet content, community outreach activities, and professional development for teachers to teach environmental concepts, inspire creativity in students, and encourage students to explore environmental topics. The program provides teachers with skills they can use in developing science and mathematics lesson plans that examine such environmental issues as water conservation, wasteful packaging, and waste



disposal. The primary target audience of the project is teachers and students in grades 5 through 8 in Missouri, Kansas, and Illinois. The project's web site serves a dual purpose as a fun and safe place for students to visit on their own and as a curriculum resource for teachers.

ST. VINCENT HOME SCHOOL - \$1,687

MAXINE PROCHNOW, 7401 FLORISSANT ROAD, ST. LOUIS, MO 63121

#### *Improving Academic Skills Through Exploration and Research*

The project involves neglected and abused children from economically disadvantaged urban areas. Each child receives an individualized curriculum that reflects the student's learning level. Through hands-on research activities, the students identify environmental problems, such as unclean water and disposal of waste in their neighborhoods. The training consists of outings, videos, Internet searches, and hands-on experiences. Students examine how the environmental issues have affected their lives and explore ways in which they, as students, can improve the environment while they improve the academic skills of reading and research. Group meetings are held twice weekly for discussion and planning. Committees are formed and students begin Internet searches to develop information about issues of unclean water and waste disposal. The committees report on their progress during the group meetings. Students participate in outings during which they document environmental problems in their neighborhoods. They also visit landfills, recycling plants, polluted lakes and rivers, and water purification plants. They visit sites in disadvantaged neighborhoods and sites in economically advantaged neighborhoods to compare the environmental conditions of those environments. Students report on the projects they choose, describing the research they conducted, their reasons for choosing particular projects, and the solutions they worked to achieve. Students make presentations to the school community and receive ecology awards from the in-school scouting program.

WYMAN CENTER, INC. - \$14,035

PATTY CLEMONS, 600 KIWANIS DRIVE, EUREKA, MO 63025

#### *Peabody Elementary School Environmental Education*

Under the project, which is a partnership effort between Wyman Center and Peabody Elementary School, students in grade 6, their teachers, and 10 volunteer cabin counselors attend a four-day environmental education residential camp. The students, teachers, and counselors learn about aquatic ecology, cycles, and ecosystems and participate in a community service project. The activities are conformed to the state standards for mathematics and science. The program includes a pre-program visit to the school to prepare the students and teachers for the learning experiences. A month after the camping experience, a post-program visit is made to the school, and a test is administered to participants to assess the effectiveness of the program. The Wyman Center facilitates a workshop on the learning experiences.

## **MONTANA**

MISSOULA COUNTY PUBLIC SCHOOL DISTRICT #1 - \$5,000

ROBERT MCKEAN, 215 SOUTH 6TH STREET, W, MISSOULA, MT 59801

#### *Outdoor Environmental Education Learning*

The goal of the project is to establish a program that offers quality outdoor environmental education learning experiences for students in grade 6 in the Missoula area. Now in its fourth year, the program serves almost 500 students, 20 teachers, 15 college student volunteers, and several interns. The audience is reached through lessons, games, and activities adapted from established sources and programs, with classes conducted by a lead instructor and trained volunteers at an outdoor recreation area in a nearby national forest.





MONTANA SCIENCE INSTITUTE, INC. - \$5,000  
 GIL ALEXANDER, 7653 CANYON FERRY ROAD, HELENA, MT 59602

*Workshop in Forest Fire/Wildfire Utilization*

Montana Science Institute, Inc. provides a three-week workshop in the use, fighting, and management of forest fires and wildfires, along with remediation after such fires, for 25 at-risk high school students and community members who were affected by fires in the upper Missouri watershed during the summer of 2000.

NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY - \$10,886  
 KATHLEEN HADLEY, 3040 CONTINENTAL DRIVE, BUTTE, MT 59702  
 (Project in Arkansas)

*Streams as Living Laboratories*

Schools in Fayetteville adopt portions of six urban streams to participate in a monthly investigation of water quality through the application of monitoring and sampling techniques. Approximately 170 students participate in the study of watershed ecology and water quality. The lessons learned are related to human health threats posed by environmental pollution and to community education about watersheds, issues related to water quality, and the effects of such issues on public health. Age-appropriate programs of environmental investigation are developed to facilitate the participation of students at various levels. The Adopt-A-Watershed Program and the EPA's Water Patch projects are used as models for the project.

ROCKY BOY PUBLIC SCHOOLS - \$23,290  
 SANDRA MURIE, RR1, Box 620, Box ELDER, MT 59521

*Living Laboratory*

Under the project, a "living laboratory" is developed to rehabilitate a 0.25 mile section of the streambed of Parker Canyon Creek. Students collect data on the physical, chemical, and biological water quality parameters from pre-selected investigation sites and use those data to explore the causes of changes in water quality. The Chippewa Creek Tribal Water Resources Department and the Rocky Boy Soil Conservation District use the results to establish the provisions of the water quality standards.

WILD ROCKIES FIELD INSTITUTE - \$4,700  
 DAVID HAVLICK, P.O. Box 7071, MISSOULA, MT 59807

*Summer Field Course in 2002 for Educators*

The institute develops and implements two sections of a summer field course that are provided to educators in 2002. The field course is offered to teachers, particularly teachers of grades 6 through 12, and college students who are considering careers in education. Designed for experiential learning, the course is conducted in the field during a week-long back-packing trip in Montana's Bitterroot Mountains. Each participant receives a curriculum packet that includes lesson plans and field-based teaching suggestions for use after the course.

## NEBRASKA

EDUCATIONAL SERVICE UNIT 15 - \$23,930  
 PAUL EKBERG, P.O. Box 398, TRENTON, NE 69044

*Wetland Restoration Project*

Teachers and students from Nebraska and Kansas investigate three specific types of wetland environments to determine their effects on water purity, as well as to examine the diversity of plant species. Using the wetland sites as models, participants develop and help implement a wetland management plan for a new wetland area to be developed on land in south-central Nebraska that is the property of the U.S. Army Corps of Engineers.



KEEP NORTH PLATTE & LINCOLN COUNTY BEAUTIFUL - \$10,420  
SARA MORRIS, 715 SOUTH JEFFERS, NORTH PLATTE, NE 69103

### *Magic of Recycling*

The project provides a venue through which 1,915 students and 26 teachers in North Platte share historical and environmental information with people of all ages and interests through “hands-on” and public speaking (drama or storytelling) formats. Students are involved in three learning activities that lead students to study respect for the Earth as evidenced in the historical models of caring for the Earth exhibited by Native American and pioneer cultures. Students then develop their own respect-for-the-Earth service projects based on the Reduce, Reuse, and Recycle message set forth by Timothy Wenk in Thematic of Recycling, an award-winning presentation. Trips to Dancing Leaf Lodge and Living History Day give the students an historical perspective on the close ties that Native Americans and pioneers had to the Earth. The Magic of Recycling introduces students to the hands-on paper recycling program being established in the schools. Fourth graders lead their respective schools in setting up a school recycling site and introduce those programs to the public at PTA meetings and during visits to senior centers and retirement homes.

KEEP OMAHA BEAUTIFUL, INC. - \$3,056  
CINDY SMILEY, 1819 FARNAM STREET, SUITE 306, OMAHA, NE 68183

### *Ecology Day Camps for Kids*

The project is a week-long program that educates 25 students in grades 4, 5, and 6 who live in inner-city neighborhoods about the environmental issues that affect their communities. The students take part in a day camp program and travel by bus to environmental areas and businesses in Omaha. The students participate in five different projects. Each day, activities focus on a particular theme: water quality, litter, recycling, nature studies, and environmental issues. The students visit a water treatment plant and participate in water games adapted from the curriculum Aquatic Project Wild. They also carry out a litter cleanup project adapted from the Waste in Place curriculum, travel to illegal dump sites, and make a “garbage pizza.” The students visit one of the city’s recycling centers, take a nature walk in Fontenelle Forest to conduct an animal study and tree and leaf studies, and travel down the Missouri River by boat.

LEOPOLD EDUCATION PROJECT - \$5,000  
WENDY CHEEK, 503 TAYLOR CIRCLE, PAPILLION, NE 68046

### *Leopold Education and Learning Tree Projects*

Nebraska Leopold Education and Nebraska Project Learning Tree is conducting one workshop of two days in length and four single-day educator workshops to train 80 educators of students in grades 7 and 12. Both formal and informal educators participate in the workshops. The teachers receive hands-on training in conservation education, forest ecology, and fire management of forest prairies. Educators receive training in three Project Learning Tree environmental education program modules and learn strategies for integrating the materials into existing curricula and programs.

LINCOLN PUBLIC SCHOOLS FOUNDATION - \$5,000  
SONYA EKART, 5901 O STREET, LINCOLN, NE 68501

### *Beattie Elementary Outdoor Learning Project*

Students create an outdoor garden for use in learning about the growing cycle. Students learn about the elements needed to grow a garden and how the environment affects those elements. The students construct six raised-bed garden plots in which they plant flowers and vegetables. The students conduct experiments to learn how plants grow. The experiments vary according to the grade levels of the students.



## NEVADA

CHAMPIONS OF THE TRUCKEE RIVER - \$5,000  
ELISA MEER, 316 CALIFORNIA AVENUE, #737, RENO, NV 89509

### *Water, Water, Everywhere*

The integrated watershed management education project has two components, one targeted at decision makers and the other targeted at the community at large. The program focuses on giving the two targeted audiences a basic understanding of integrated watershed management. The audiences learn what a watershed is, how the local watershed works, and who does what in the watershed. Specific topics include the quantity and quality of the water, flooding, and habitats. A series of four workshops and tours is conducted, in addition to a series of bimonthly newspaper advertisements and updates of the project's web site to reach the community at large.

## NEW HAMPSHIRE

AUDUBON SOCIETY OF NEW HAMPSHIRE - \$12,500  
IAN MCLEOD, 3 SILK FARM ROAD, CONCORD, NH 03301

### *The Northern New England Science Center Collaborative: Docent Training Program*

The collaborative was formed to examine the issue of global warming. The goal of the project is to further develop the collaborative's model for science education, under which a specific environmental issue is studied by linking research institutions to science centers and the public. The project proposes a training program for docents and teachers that focuses on current concepts related to climate change and potential changes in the region's ecosystem and exposes staff of the science center to a cutting-edge study of climate change being conducted in New England.

NEW HAMPSHIRE PROJECT LEARNING TREE - \$5,000  
ESTHER COWLES, 54 PORTSMOUTH STREET, CONCORD, NH 03301

### *Focus on New Hampshire Forests*

The project increases awareness and understanding among teachers and students of important environmental issues related to forests in New Hampshire. Project Learning Tree develops fact sheets and lists of resources that examine those contemporary issues. The fact sheets and lists then are used in the project's teaching modules.

## NEW JERSEY

CAMP VACAMAS - \$5,000  
MICHAEL FRIEDMAN, 256 MACOPIN ROAD, WEST MILFORD, NJ 07480

### *Youth Environment Squad (YES)*

The YES program provides intensive preparation for five environmental education assistants who are graduates of the residential alternative education program at Vacamas Academy. The program, which prepares the assistants to work with approximately 150 middle school students from Crown Heights, Brooklyn, New York, focuses on hands-on environmental and interdisciplinary programs and development of skills in planning, designing, and scheduling lessons. The YES teaching assistants then work with environmental education counselors from Vacamas to provide environmental education programming to the students from Brooklyn, who make five visits to the camp during the school year.



CITIZEN POLICY AND EDUCATION FUND OF NEW JERSEY - \$5,000

JOHN WEBER, 400 MAIN STREET, HACKENSACK, NJ 07601

*Lead Poisoning Prevention: Train the Trainer Statewide Initiative*

The project targets staff members of social service organizations and leaders of community groups in neighborhoods in which the incidence of lead poisoning is high. Participants attend a day-long seminar on lead poisoning; the hazards of lead poisoning; techniques for preventing lead poisoning; ways to help clients understand their legal, housing, and educational rights; and strategies for assisting families of children at risk for lead poisoning. The materials used during the workshop are provided to participants so they can use them to train others in their communities. Participants receive assistance in preparing presentations and developing activities related to the prevention of lead poisoning. An electronic bulletin provides additional post-training support.

CROSS-COUNTY CONNECTION - \$5,000

REBECCA PIERSON, TRANSPORTATION MANAGEMENT ASSOCIATION, INC., GREENTREE EXECUTIVE CAMPUS, 2002D LINCOLN DRIVE WEST, MARLTON, NJ 08053

*Commute Awareness Classroom Teaching*

The educational program conducted by Cross-County Connection teaches students in grade 3 about the problems associated with traffic congestion and air pollution and examines the ways in which air pollution can affect human health. The program targets approximately 1,000 children in school districts in Camden and Burlington counties. Staff of Cross County Connection conduct classes in the schools and provide take-home materials. The interactive and hands-on program helps students understand what air pollution is, what causes it, and how transportation choices can affect levels of air pollution. The students learn about the formation of ground level ozone and its effect on youngsters, the elderly, and those affected by respiratory ailments. Students design ride-share billboards and explore alternatives to travel by single-occupant vehicles as a method of decreasing air pollution. Participants receive certificates that salute them as Friends of the Environment.

THE PASSAIC RIVER COALITION - \$5,000

ELLA FILIPPONE, 246 MADISONVILLE ROAD, BASKING RIDGE, NJ 07920

*Where Are You in Your Watershed?*

The Passaic River Coalition is a watershed association that works in water and land-use management in northern New Jersey and southern New York. A participant in the water management program of the state of New Jersey, the coalition is developing a poster, *Where Are You in Your Watershed?*. The poster is used, along with stickers, to help people of all ages identify their location in the Passaic River watershed. The initial audience is reached through distribution of the materials to local government agencies, libraries, and schools. In addition, a take-home version is distributed to schools to help families understand their relationship to the watershed. The poster also identifies water and sewage treatment facilities and such ecologically sensitive areas as the Great Swamp National Wildlife Refuge.

SOCIETY OF AMERICAN FORESTERS - \$5,000

TERRY O'LEARY, NEW JERSEY DIVISION, 370 EAST VETERANS HIGHWAY, JACKSON, NJ 08527

*Protecting Stream Headwaters*

The program consists of a series of four workshops that reach approximately 150 leaders and facilitators in environmental education. The project focuses on the Pinelands National Reserve, the location of the headwaters of streams in the ecologically significant Pinelands region of New Jersey. The workshops provide leadership education about the sensitivity of headwaters to changes in the environment and the need for watershed planning and management. The field-based workshops examine factors that affect watersheds, including non-point source pollution, and provide participants with hands-on experience in examining the headwaters of a tributary of the Toms River.



STONY BROOK-MILLSTONE WATERSHED ASSOCIATION - \$22,315

GEORGE HAWKINS, ENVIRONMENTAL EDUCATION PROGRAM, 31 TITUS MILL ROAD, PENNINGTON, NJ 08534

### *Watershed Education Initiative*

Building Environmental Education Solutions (BEES), the community-based environmental education program of the Stony Brook-Millstone Watershed Association, educates teachers throughout the state about watershed management and issues related to watersheds. In partnership with the New Jersey Audubon Society, the Youth Environmental Society, and Project Urban and Suburban Environments, BEES seeks to improve the environmental education skills of teachers. The project includes a week-long Water Education Institute, a workshop on watershed education and the techniques of monitoring for water quality, an intensive day of field experience on the Millstone River, and a resource guide for educators compiled from existing sources. A web site and support for teachers after the workshop are key components of the program. In addition, the Watershed Stewardship Program and a student colloquium provide additional opportunities for community members, teachers, and students to become involved in experiences related to stewardship of watersheds.

UNION CITY BOARD OF EDUCATION - \$5,000

SILVIA ABBATO, HUDSON ELEMENTARY SCHOOL, 3912 BERGEN TURNPIKE, UNION CITY, NJ 07087

### *Recycling Education Project at Hudson Elementary School*

The project overcomes language and cultural barriers to promote recycling as a community ethic among the immigrant Latino population served by Hudson Elementary School. Teachers and parents are involved in workshops, while students take part in classroom activities and field trips related to recycling. To promote recycling, students develop a Spanish-language publication targeted at early elementary grades. The publication, which includes posters developed by students under the program, is featured on the web site of the Union City Public Schools, and the publication is distributed to elementary schools in the district, as well as other local and state information centers.

## **NEW MEXICO**

CERRILLOS HILLS PARK COALITION - \$4,800

E.J. PATTERSON, P.O. Box 191, CERRILLOS, NM 87010

### *Spring Enhancement Education Initiative*

The initiative establishes an environmental learning station in the Cerrillos Hills Historic Park that provides testing and measuring equipment and interactive tools for use by students in kindergarten through grade 12. The learning stations, 8 to 10 of which are developed, provide skill and content activities that progress from grade to grade, incorporating a wide range of content areas and providing opportunities for collaboration among county support staff, educational volunteers, teachers, and local businesses and organizations. The major trail in the park offers viewpoints, monitoring stations, and restoration work areas that visitors easily can observe without interfering with ongoing restoration work. Because a number of soil types are found in the park, students have the opportunity to apply various monitoring and testing techniques and explore a number of approaches to restoration.

CHIHUAHUA DESERT NATURE PARK - \$4,531

STEPHANIE BESTELMEYER, P.O. Box 891, LAS CRUCES, NM 88004

### *Volunteer Educator Hands-On Science Program*

Volunteers from local communities develop knowledge of and an appreciation for a desert environment through a hands-on science program. Those volunteers then go into classrooms to teach children 10 lessons on natural science and the environment. All lessons feature hands-on learning experiences that



introduce students to the excitement of science, while they learn the critical-thinking skills inherent in the scientific process. The nature park works in partnership with USDA, New Mexico State University, and the Las Cruces Public Schools. More than 1,000 students are expected to benefit from the project, which focuses on deserts and water, animal adaptation, plant adaptation, insects and other arthropods, soil erosion, weather, reptiles and amphibians, seed banks, mammals, and herbivores.

CUBA INDEPENDENT SCHOOL DISTRICT - \$4,558

ALAN CARSON, CUBA, NM 87013

### *Our Water, Our Life*

Students learn about the relationships between land and waters in their community through hands-on projects provided by the Forest Service. The projects focus on such local issues as water quality, the health and sustainability of the Rio Puerco watershed, and future growth and use of resources. After participating in field trips provided by the Forest Service, students return to the classroom for more hands-on activities to reinforce what they have learned. Teachers participate in Project WET workshops; exploration kits educate teachers and increase their awareness of opportunities to incorporate environmental lessons in all aspects of their classroom curricula. The goal of the school district is to establish environmental education as a part of the district's overall curriculum.

NM MESA, INC. - \$20,000

MICHAEL GARCIA, 2808 CENTRAL, ALBUQUERQUE, NM 87106

### *Summer Ecology Research Program*

NM Mesa provides quality ecology education to teachers and students across the state by providing prospective college students with information about careers related to environmental science. The project provides hands-on experiences in ecology through field work and instruction in the techniques of scientific research; exposes students to aspects of mathematics, science, and technology through web pages; and emphasizes the proper use and maintenance of natural resources. Students are trained in the use of such field equipment as sweep nets, kick nets, D-nets, bottom dredges, plankton tows, and pitfall traps. In exploring the physical environment, students are trained in the use of instruments that monitor weather conditions and similar techniques. Students are required to maintain portfolios of their research and produce research papers when they have completed their projects.

## **NEW YORK**

ADIRONDACK PARK INSTITUTE - \$21,720

LINDA BENNETT, P.O. BOX 256, NEWCOMB, NY 12852

### *Hudson Basin River Watch: Headwaters Project*

The Adirondack Park Institute, which supports environmental education programs at two interpretive centers in the Adirondack Park in northern New York, works in partnership with Hudson Basin River Watch. Together, the two organizations provide workshops for elementary, middle, and high school teachers in all school districts within the Adirondack Park reaches of the Hudson River watershed. The training enables teachers to incorporate authentic field-based programming into their curricula by using students' interest in local water quality as a starting point. In addition to the workshops, the project includes mentoring support for participating teachers. Other partners in the project are the New York State Adirondack Park Agency; school districts in the Adirondack Park area; and the Warren, Washington, Hamilton, Saratoga, and Essex County Board of Cooperative Educational Services.





BROOKLYN BOTANIC GARDEN - \$5,000  
ELLEN KIRBY, 1000 WASHINGTON AVENUE, BROOKLYN, NY 11225

*The Sustainable Garden Project: A Project of Brooklyn GreenBridge*

The project, a new component of Brooklyn GreenBridge, the Brooklyn Botanic Garden's community horticultural program, targets members of community organizations in Brooklyn's low-income communities. The project teaches participants about developing abandoned sites and converting them into sustainable gardens and green spaces. The project includes on-site workshops, special plant kits, updated educational materials, and on-site support for the efforts of 12 community organizations to develop gardens. Participants who have not previously learned about environmental stewardship develop the knowledge and skills they need to restore and maintain environmental balance as they learn about native plants, water conservation, drought-tolerant gardening, and wildlife gardening.

CITY PARKS FOUNDATION (CPF) - \$5,000  
DEBORAH LANDAU, 830 FIFTH AVENUE, NEW YORK, NY 10021

*Mary Leou Excellence in Science Teaching Award*

The project supports an award program for elementary school teachers in New York City. CPF solicits applications from teachers through its partnerships with the New York City Science Coordinators Network and the New York City Board of Education for awards that recognize innovative teaching about the environment. The award program, named after a long-time director of CPF, provides funds to enable recipients to purchase materials or services to support the implementation of their environmental education ideas. In addition to receiving the cash award, the teachers participate in two full-day workshops to prepare them for the following semester's program of environmental education, enhance their teaching skills, and trouble shoot implementation of their plans. The project actively encourages the teachers to build networks with one another and to participate in professional programs and workshops.

CORNELL COOPERATIVE EXTENSION OF MONROE COUNTY - \$22,315  
BRIAN ESHENAU, 249 HIGHLAND AVENUE, ROCHESTER, NY 14620

*Great Lawns/Great Lakes*

Great Lawns/Great Lakes expands a pilot project that reaches homeowners throughout Monroe County. The project helps improve water quality by reducing fertilizer and pesticide runoff to waterways through an education program that motivates homeowners to reduce the amount of fertilizer and pesticides they apply to their lawns. In partnership with the Monroe County Department of Health and in cooperation with other Extension Service programs, Great Lawns/Great Lakes uses radio, television, and print media; community workshops; and educational programs to teach homeowners how to determine an appropriate level of fertilization that reduces their costs while improving their lawns and the environment. The program also provides education in the use of integrated pest management to eradicate pests, while reducing the amount of pesticide used. The lawn care education project is an element of a large-scale watershed plan for Lake Ontario and the Genesee River.

CORNELL LABORATORY OF ORNITHOLOGY - \$5,000  
MICHAEL LENETSKY, 159 SAPSUCKER WOODS ROAD, ITHACA, NY 14850  
(Project in Utah)

*Classroom Feeder Watch Workshop Leader Training*

The workshop trains educators to be workshop leaders and uses an interdisciplinary curriculum and standards-based resource kit. The workshop is held at Utah State University in Logan, Utah. The Cornell Laboratory of Ornithology is a membership institution, the mission of which is to interpret and conserve the earth's biological diversity through research, education, and citizen science focused on birds.





IMMACULATE CONCEPTION ENVIRONMENTAL CLUB - \$4,800  
LISA JACOBSEN, 16 NORTH BROADWAY, IRVINGTON, NY 10533

*Outdoor Environmental Laboratory*

Under the project, teachers and students in kindergarten through grade 8 use a natural space environment to learn about living things. Concepts drawn from the National Wildlife Federation's Backyard Wildlife Habitat Program were used in developing the program. The project includes planning, developing, and maintaining an outdoor nature laboratory and nearby compost area as a learning center. Students work in teams and use problem-solving strategies as they create a wildlife habitat. Students also become guides for students visiting from other schools. The project conforms to state standards for mathematics, science, and technology and is designed to help students understand the value of wildlife and the importance of natural ecosystems.

MOHONK PRESERVE, INC. - \$5,000  
GLENN HOAGLAND, P.O. BOX 715, NEW PALTZ, NY 12561-0715

*Watershed Education Program*

The Mohonk Preserve, the largest non-profit, member-supported nature preserve in the state of New York, works in partnership with AmeriCorps in the mid-Hudson Valley to educate youth about watersheds. A pre-trip classroom visit by an educator is followed by a four-hour field study at the Mohonk Preserve. The classroom work focuses on water pollution, the watershed, use of water resources by humans, and the effects of human activities on those resources. The field study engages students actively in testing for water quality. Teachers use prepared materials to conduct a post-trip class that challenges students to apply what they have learned to their everyday lives. The project targets students in grades 7 and 8 in urban schools, as well as their teachers, parents, and guardians.

MUSEUM OF THE HUDSON HIGHLANDS - \$5,000  
JACQUELINE GRANT, P.O. BOX 181, CORNWALL-ON-HUDSON, NY 12520

*Science Institute Audience Expansion*

The Museum of the Hudson Highlands Science Institute provides professional development for teachers in kindergarten through grade 5. The purpose of the training is to enable the teachers to provide their students with environmental education experiences at outdoor sites at the museum. The project is adapted from the program pilot, with the original program revised and expanded so that teachers can use the workshop lessons at other local outdoor areas in the Hudson Highland region. Educators in schools and informal educational organizations within a 45-minute drive of the museum are the focus of the program. The expanded project provides those educators three workshops during which the newly revised and adapted lessons can be used.

RESEARCH FOUNDATION, STATE UNIVERSITY OF NEW YORK/COLLEGE AT ONEONTA - \$5,000  
TRACY ALLEN, P.O. BOX 9, ALBANY, NY 12202

*New Island Greenway Environmental Education Project*

New Island is an undeveloped 82-acre riparian lowland located along the banks of the Susquehanna River. Through the project, students of environmental science at Oneonta College are conducting a detailed study of the river's riparian zone ecosystem, interpreting elements of the ecosystem to the public, and advising the Oneonta Susquehanna Greenway Development Committee about the biological resources available for public enjoyment. The students' findings are delivered to the Oneonta Susquehanna Greenway Development Committee at two public meetings. Students also design ecostations for the Greenway Nature Trail.



NEW YORK UNIVERSITY (NYU) SCHOOL OF EDUCATION - \$5,000

MARY LEOU, OFFICE OF SPONSORED PROGRAMS, 15 WASHINGTON PLACE, APARTMENT 1H, NEW YORK, NY 10012

*Web Site Development for Wallerstein Collaborative for Urban Environmental Education*

The Wallerstein Collaborative for Urban Environmental Education is developing a web site that provides resource materials and information about professional development opportunities for students and teachers in environmental education. While initially focusing on students in NYU's pre-service teacher education and conservation programs, the program also targets educators at informal science education institutions. An effort supported by a partnership with two departments at NYU (Teaching and Learning and Humanities and Social Sciences in the Professions), the New York City Board of Education's Science Coordinator's Network, and the Environmental Education Advisory Council, the collaborative's web site disseminates quality environmental education programming to the education community.

WATERMAN CONSERVATION EDUCATION CENTER - \$4,281

EILEEN SHATARA, 403 HILTON ROAD, P.O. BOX 377, APALACHIN, NY 13732-0377

*Raptor Environmental Education Program*

The Waterman Conservation Center, which serves the southern tier of New York and northern Pennsylvania, uses a resident red-tailed hawk named Redmond to teach students in kindergarten through grade 12 the importance of conservation of raptor species. Using approaches designed to develop critical-thinking skills, Waterman staff conduct classes on a range of topics to build the students' knowledge of conservation, as the students design their own conservation projects. After learning to identify characteristics of Redmond and other raptors, students also learn the value of such birds to the environment and examine the various threats to their survival. Older students explore falconry to learn how humans have interacted with raptors. Students in all classes learn the importance of environmental conservation, both to themselves and to wildlife.

WILDLIFE CONSERVATION SOCIETY/THE NEW YORK AQUARIUM - \$15,017

MERRYL KAFKA, BOARDWALK AND WEST EIGHTH STREET, BROOKLYN, NY 11224

*Project POWER: Protecting Our Wetlands with Educators and Regulators*

The New York Aquarium, in partnership with the New York State Department of Environmental Conservation, is conducting a community education course on wetland law and ecology in each of the boroughs of New York City. The project targets adults in communities located in environmentally sensitive wetland areas. Linking the educational resources of the Wildlife Conservation Society with the technical expertise of the Department of Environmental Conservation, and combining the community outreach networks of the two organizations, Project POWER develops an innovative and collaborative workshop program designed to teach the public about wetlands and their ecology and the regulations that protect them. The project seeks to increase the number of citizens who, having gained an understanding of the nature of wetlands, will care for wetlands and prevent violations of regulations governing wetlands.

## NORTH CAROLINA

*See page 6 for a profile of a grant awarded to the Environmental Education Fund by EPA Headquarters.*

NORTH CAROLINA ASSOCIATION OF SOIL AND WATER CONSERVATION DISTRICTS - \$5,000

STEVE BENNETT, 3800 BARRETT DRIVE, SUITE 101, RALEIGH, NC 27609

*North Carolina Envirothon Program*

The North Carolina Association of Soil and Water Conservation Districts includes all 100 counties in the state. The North Carolina Envirothon Program is a high school and middle school "hands-on" environmental education competition that involves most of the state's natural resource agencies and environmental



organizations, along with private-sector partners, in the effort to educate students and teachers about issues related to natural resources and the environment. The components of the educational program are: soils, forestry, aquatics, wildlife, and current environmental issues. The North Carolina Envirothon is expanding; it is hoped that the number of schools participating will double by 2002. The Envirothon provides environmental resources to teachers and students, trains students to work together as a team, and provides teachers and students knowledge about and exposure to many environmental issues that affect our ecosystems.

PARTNERSHIP FOR THE SOUNDS - \$5,000

SUE LINTELMAN, P.O. BOX 55, COLUMBIA, NC 27925

*Summer Water Quality Camp*

The Partnership for the Sounds is a private, non-profit organization that fosters environmental education and ecotourism in the Albemarle-Pamlico region of North Carolina. The objective of the project is to fund a water quality camp to be held during the summer. The camp provides hands-on environmental education activities to 50 students in grade 4 who have shown an interest in science. The students live in a rural, economically distressed county, in which 80 percent of the population is made up of members of minority groups and which offers few summer programs. Two camp sessions, each one week in length, provide the students the opportunity to learn the principles of scientific research, interact with environmental professionals, and visit waterways and natural areas in the Albemarle-Pamlico region.

THE UNIVERSITY OF NORTH CAROLINA (UNC) CENTER FOR PUBLIC TELEVISION (UNC-TV) - \$5,000

TOM HOWE, 10 T.W. ALEXANDER DRIVE, P.O. BOX 14900, RESEARCH TRIANGLE PARK, NC 27709

*Troubled Waters — A Look at Water Pollution in NC and Its Health Effects*

During the past few years, North Carolina has undergone an unprecedented assault on its water resources, and recent natural disasters have added to the state's woes. Under the project, UNC-TV plans to provide a statewide platform for educating residents about the causes and effects of water pollution. Five segments to be aired on "North Carolina Now", a week-night television information magazine available statewide, as well as a one-half hour documentary, are produced to disseminate information about water pollution in the state. Finally, an hour-long program in call-in or live studio audience "town hall meeting" format is broadcast.

WATAUGA COUNTY SCHOOL DISTRICT - \$19,000

MARY JO PRITCHARD, 160 PARKWAY SCHOOL DRIVE, BOONE, NC 28607

*Parkway Ecology Project (PEP)*

The objectives of the program are to teach scientific processes presented in the North Carolina Standard Course of Study, in conformity with the National Science Standards, and to train teachers, students, and citizens of the community to be aware of their environment. Teachers are reached through workshops designed to help them apply the existing state curriculum through an inquiry approach, learning how to monitor and protect the environment. A major focus of the teacher training is preparing teachers to guide students in inquiry-based, hands-on activities that develop competencies in environmental science, as mandated by state standards. Teachers learn to help students connect scientific processes to everyday life by using problem-solving approaches and technology to perform active monitoring and assessment of environmental conditions on school grounds.



## NORTH DAKOTA

UNIVERSITY OF NORTH DAKOTA - \$16,687

LARS HELGESON, Box 7189, GRAND FORKS, ND 58202

### *Teacher Education Programs To Provide Training for Native American Teachers*

The project provides subsidies for the purchase of instruments for teacher education programs that train Native American teachers and students to perform water quality measurements. A four-day workshop is held at Little Hoop Community College in Fort Totten to implement mapping techniques, and a web site is developed.

## OHIO

CLARK CENTER ALTERNATIVE SCHOOL-WASHINGTON COUNTY EDUCATIONAL SERVICE CENTER - \$5,000

EMILY HAYES-NEWMAN, ROUTE 1, BOX 15, MARIETTA, OH 45750

### *Butterfly Exodus Project*

Clark Center Alternative School provides high-quality, hands-on environmental education as a tool for motivating at-risk youth. Youth collaborate with key partners to plan, design, and create an indigenous butterfly and bird land laboratory on the school grounds. Students work in teams with naturalists to cultivate a garden made up of plants that attract native birds and butterflies. With walking paths to provide easy access, the land laboratory gives students an opportunity to observe, investigate, and record the life cycles, behavior, and migratory patterns of native butterflies and birds. Students also develop presentations on the benefits of preserving natural habitats that they deliver to schools and community organizations.

CLEVELAND METROPARKS - DIVISION OF OUTDOOR EDUCATION - \$11,058

ROBERT HINKLE, GARFIELD PARK NATURE CENTER, 11350 BROADWAY AVENUE, GARFIELD HEIGHTS, OH 44125

### *Project Watershed*

Cleveland Metroparks expands its existing outreach program on watersheds to include the following new or updated items: 1) curriculum materials, 2) laminated wall maps of the watershed, 3) interactive exhibits, 4) interactive computer programs, 5) teacher workshops, and 6) a watershed web page. The goal of the project is to develop a watershed resource to be shared among 34 naturalists who disseminate the information in schools, through Metroparks' programs, and to members of the community at various locations.

## OKLAHOMA

OKLAHOMA CITY BEAUTIFUL - \$5,000

JO ANN PEARCE, 2325 CLASSEN, OKLAHOMA CITY, OK 73106

### *Mother Earth Education*

Mother Earth presents a play for all students at 13 elementary schools in the Oklahoma City area. The interactive play, featuring the characters Mother Earth, Larry the Litterbug, and Darlin' Daisy, teaches the students about litter and about recycling and other objectives and asks students to promise to help clean up their schools and homes. The program director trains actors who are experienced in children's theatre to deliver the appropriate messages. The project uses a 12-week curriculum for students in grade 3; the curriculum includes lesson plans, hand-on experiments, lists of resources, and suggestions for field trips. When the students have completed the program, Mother Earth returns to help them plant a tree on school grounds.



## OREGON

ENVIRONMENTAL EDUCATION ASSOCIATION OF OREGON (EEAO) - \$20,000

ELAINE JANE COLE, P.O. Box 15192, PORTLAND, OR 97293-5192

### *Building Environmental Education Capacity in Oregon*

The goals of the project are to provide leadership for educators who are committed to environmental education; to provide support and resources for educational programs; to develop and maintain a strong organizational structure that is easily accessible to educators throughout the state; and to create a self-sustaining, continuing base of funding. The prime objective of the project is to create an indispensable line of resources and services through development of an EEAO web site, facilitation of four Dig and Delve workshops (statewide workshops provided to educational service districts to teach how to work with local partners that fulfill service learning requirements to design and implement a habitat enhancement project), and conduct of annual statewide conferences. A newly hired executive director provides daily organizational oversight.

JACKSON BOTTOM WETLANDS PRESERVE - \$18,500

PATRICK WILLIS, 2600 SW HILLSBORO HIGHWAY, HILLSBORO, OR 97123

### *Oregon NatureMapping*

The project is an educational program designed to engage citizen scientists in monitoring terrestrial wildlife and sharing their observations with others through a web-based database that can be used to track biodiversity in Oregon. Teachers in the Portland and Hillsboro school districts attend a two-day workshop to learn the process of NatureMapping, identify ways to use NatureMapping in their curricula that meet state benchmarks, and build capacity for developing sustained NatureMapping programs for classrooms. Program staff of Jackson Bottom Wetlands Preserve facilitate monthly meetings of teacher peer groups, during which the teachers discuss their curricula and student assessment plans, share resources, and evaluate their teaching practices. A web site provides on-line support and resources for teachers and their students and provide members of the general public with the resources they need to perform NatureMapping on their own.

MIDCOAST WATERSHEDS COUNCIL - \$5,000

AMY BOHNENSTIEHL, 157 NW 15TH STREET, UNIT 1, NEWPORT, OR 97365

### *Macroinvertebrate Sampling with Newport Middle School*

The project, which uses an existing watershed and stream-monitoring curriculum, educates 6 teachers, 180 students, and 30 adult volunteers about the health of streams in their area and the importance of healthy habitat to populations of the threatened and endangered native salmon. Two classroom presentations precede the field trips and small-group field sessions. The classes collect baseline data on macroinvertebrates from streams in the municipal watershed. Participants identify pollution-tolerant and -intolerant species and inventory those species to develop scores that indicate the health of individual streams. After they perform graphing and analysis in the classroom, students present their results to the school, the watershed council, and the city council.

PORTLAND STATE UNIVERSITY, CENTER FOR SCIENCE EDUCATION - \$19,999

JULIE MAGERS, P.O. Box 751, PORTLAND, OR 97207-0751

### *Community Action & Problem Solving (CAPS)*

Under the project, 10 youth age 15 and their adult leaders identify local environmental issues and work to create sustainable solutions to those problems. The CAPS program provides a balanced, structured, age-appropriate framework young people can use to develop meaningful projects that benefit the environment and their communities by fostering changes in local policies or community practices. Educators and youth leaders participate in a series of skill-building professional development workshops. The educators also are provided assistance in building partnerships among environmental experts, their schools, and their students to work to develop sustainable solutions to local environmental problems.



THURSTON HIGH SCHOOL, SCIENCE DEPARTMENT - \$10,000  
ROBERT GREEN, 333 NORTH 58TH STREET, SPRINGFIELD, OR 97478

*Thurston High School Water Quality Monitoring Program*

The school develops a comprehensive water science program that integrates classroom instruction and water-testing laboratories in biology and chemistry courses with a variety of research projects carried out in the community. The projects range from monitoring of streams adversely affected by urban development to the establishment of a community water-testing laboratory to be operated by students. The students present the results of their studies of water quality and macroinvertebrate populations in Cedar Creek to the local watershed council, the water and electric board, and city officials.

UNIFIED SEWERAGE AGENCY - \$4,000  
SHERI WANTLAND, 155 NORTH FIRST AVENUE, SUITE 270, HILLSBORO, OR 97124

*Bilingual Environmental Education in the Tualatin River Watershed*

The project adapts popular and successful watershed education programs and makes them available to Spanish-speaking families in the fast-growing area of Cornelius and Hillsboro and unincorporated areas of Washington County. The project reaches the Latino community through family workshops, tours, festivals, and other nontraditional outreach efforts. The project increases the capacity of many agencies and schools in the area to deliver coordinated environmental education and provides materials that can be used in other Spanish-speaking communities. The Spanish-speaking community becomes more knowledgeable about local environmental issues.

WOLFTREE INCORPORATED - \$22,400  
JAY HOPP, 3257 SE HAWTHORNE BOULEVARD, MULTNOMAH, OR 97214

*Wolfree's Outdoor Ecology Program*

The project focuses on a study of the diverse ecosystem of central Oregon. It provides an entire watershed ecology program that is a combination of aquatic and terrestrial field-based programs, Highland Ecology and Cascade Streamwatch. Under the project, 300 students in grades 5 through 12 in Deschutes and Jefferson counties engage in classroom preparation, one or more field study programs at an outdoor classroom, and follow-up activities. Teachers attend a workshop to prepare for the project. Wolfree recruits professional scientists and professionals in the field of natural resources to work with the students in the field.

## PENNSYLVANIA

*See page 7 for a profile of a grant awarded to the School District of Philadelphia by EPA Headquarters.*

CLARION CONSERVATION DISTRICT - \$3,800  
TRUDY ALEXANDER, 265 HOLIDAY INN ROAD, SUITE #2, CLARION, PA 16214

*Conservation Education Programs for Clarion County, PA*

The project is an on-going conservation program that educates students and members of the community in conservation practices that can be applied by landowners and future landowners in Clarion County. A conservation tour familiarizes local landowners with the conservation practices available to them through participating agencies. Through the educational effort, both students and members of the community become better informed about the opportunities available to them in the areas of wildlife and land conservation through government agencies and local non-profit groups.





EAST STROUDSBURG AREA SCHOOL DISTRICT - \$3,168

GAIL KULICK-CUMMINGS, 1 GRAVEL RIDGE ROAD, EAST STROUDSBURG, PA 18301

*Resico Elementary School — Outdoor Educational Gardens*

The outdoor classroom experience introduces students to environmental and mathematical standards, while encouraging the personal attributes of caring, responsibility, respect, fairness, and good citizenship. Students develop awareness and understanding of environmental issues and cycles and how each issue or process affects natural habitats. They use the educational gardens to practice graphing, measuring, estimating, and basic computation skills. In addition, the students work collaboratively and cooperatively to create gifts to be distributed to senior citizens' homes and community centers in the area.

FRENCH CREEK OUTDOOR LEARNING CENTER - \$4,585

JUDITH ACKER, 18308 BROADWAY, MEADVILLE, PA 16335

*Integrating Technology and the Environment in the French Creek Watershed*

The French Creek Outdoor Learning Center sponsors a one-day teacher education workshop that focuses on integrating the environment and technology. Teachers learn to use scientific equipment and computer software to identify macroinvertebrates and other flora and fauna in the creek. The goal of the project is to educate teachers about French Creek as well as to train them in using technology to bring environmental education into the classroom. As an extension of the workshop, the scientific equipment is made available by loan to other teachers.

GIRLS' CLUB OF ALLENTOWN, INC. - \$5,000

DEBORAH FRIES, 1302 TURNER STREET, ALLENTOWN, PA 18102

*"WE CARE" Program (Children Acting Responsibly towards the Environment)*

The "WE CARE" program allows 125 inner-city girls, ages 5 through 18 years, to learn how to sustain an urban ecosystem. Using the established and successful Urban Community Garden as a learning environment, participants conduct hands-on experiments and activities that help them learn about and develop an understanding of the network of interactions that make up an ecosystem. They discover the ways plants, animals, and the non-living elements of our environment are all linked and affect each other.

PHILADELPHIA CITY SAIL, INC. - \$15,867

RICK LEFEVRE, P.O. Box 43235, PHILADELPHIA, PA 19129

*Schoolship Education Program*

The Schoolship Education Program teaches inner-city students in grades 5 through 8 about local urban environmental issues and the importance of environmental education. The students observe the Delaware River from a 75-foot topsail schooner sailing on the river. The program provides hands-on activities related to a number of curriculum topics, including soils, the water cycle, ecological concepts, pollution, and waste management. The project inspires the students to take action to resolve problems that contribute to the deterioration of the river.

SCHOOL DISTRICT OF PHILADELPHIA - \$3,735

MARCIA SCHULMAN, 2120 WINTER STREET, PHILADELPHIA, PA 19103

*Hunter Elementary School — Adopts the Neighborhood*

The project encourages students in kindergarten through grade 4 at Hunter Elementary School to participate in a year-long community service project. The project directs the students' energies and helps them develop personal commitments to taking action to improve their own environments. The grant project includes four major components: 1) to enlist student participation in the improvement and renewal of the environment within the boundaries of the school property, 2) to develop a working relationship with





neighborhood empowerment agencies to promote student leadership, 3) to provide to students the opportunity to explore urban and suburban neighborhoods in nearby townships through field trips to various environmental nature centers, and 4) to provide students the opportunity to attend the Philadelphia Flower Show, thereby encouraging them to enter the Junior Philadelphia Flower Show.

TEMPLE UNIVERSITY - \$5,000

ROBERT MASON, 330 GLADFELTER HALL, 1115 WEST BERKS STREET, PHILADELPHIA, PA 19122

*Delaware Canal State Park Regional Environmental Education Program*

The project funds the development of a course in environmental studies. The course provides introductory information to all constituencies that participate in the development of the Forks of the Delaware River Education Center, which is located in Easton. The project, which includes a substantial on-line component, integrates ecological and cultural perspectives on river basin interpretation and management of issues related to river basins.

THE VILLAGE OF ARTS AND HUMANITIES - \$10,000

LILY YEH, 2544 GERMANTOWN AVENUE, PHILADELPHIA, PA 19133

*Teen Environmental Leadership Internship Program*

The project provides summer and after-school internships in environmental leadership for minority teenagers living in inner-city North Philadelphia. The internships are designed to increase the students' understanding of local and global environmental issues, expose students to horticulture and environmental landscaping, encourage environmental leadership and activism, and influence environmental career choices. Participating in the program are 30 students, ages 13 through 19.

WILDLANDS CONSERVANCY - \$4,923

BARBARA VANCLIEF, 3701 ORCHID PLACE, EMMAUS, PA 18049

*Nature in the Parks*

The project addresses the issue of access to environmental education programming for inner-city children who experience significantly less exposure to environmental issues than children who live in more affluent areas. The project underwrites the cost of participation in the Wildlands Conservancy's Nature-in-the-Parks Program for children served by city social agencies, including the Sixth Street Shelter, the Volunteers of America Children's Center, the Salvation Army, and the Boys and Girls Club. The program is taught in the city parks during week-long sessions of two hours per day; experienced naturalist-educators work with small groups of approximately 15 children.

## PUERTO RICO

ANA G. MENDEZ UNIVERSITY SYSTEM, COLEGIO UNIVERSITARIO DEL ESTE - \$24,998

ALBERTO MALDONADO RUIZ, P.O. Box 2010, CAROLINA, PUERTO RICO 00984-2010

*Integrating Environmental Health Education into the Preschool Curriculum*

The project educates adults about the ways in which human behaviors can affect young children who live in Carolina, Loiza, Canovanas, and Rio Grande. Those communities border the San Juan Bay Estuary, a site that historically has been affected by environmental degradation. The project provides three sets of workshops: one for teachers in the Head Start program, another for parents, and the third for university students in preschool education programs. The workshops instruct participants in methods of integrating environmental health education into the Head Start curriculum, as well as materials that support that effort. The participating adults develop an understanding of the effects human activities can have on the environment and of how to encourage behaviors in children that shield them from such effects. The project adapts and expands materials developed under an earlier project EPA conducted in Puerto Rico to help children develop knowledge and skills that promote better health.



## RHODE ISLAND

GROUNDWORK PROVIDENCE, INC. - \$13,977

SALLY TURNER, 69 WASHINGTON STREET, PROVIDENCE, RI 02903

### *Mashapaug Pond Nature Center Summer Camp Program*

Efforts are underway to create an educational garden and trails at Mashapaug Pond in Providence. During the summer of 2001, 30 "Green Team" inner-city youth work throughout the city to develop a new environmental education component for the boating center at the pond. The youth are trained in topics related to brownfields sites, water quality, native and non-native plant species, and recreational and educational use of open green space.

PROVIDENCE COLLEGE - \$4,963

ETHAN CLOTFELTER, 549 RIVER AVENUE, PROVIDENCE, RI 02918

### *Community-based Network to Monitor Birds as Indicators of PCB Contamination*

Polychlorinated biphenyls (PCB) accumulate in body tissues and in animals at the top of the food chain. The project outlines a three-stage examination of herring gulls and common terns that inhabit areas in the vicinity of Narragansett Bay. The effort analyzes PCB levels in bird carcasses and eggs, counts gull and tern populations in contaminated areas, and establishes a network of community observers to accumulate a database of information about levels of PCBs in bird plumage as an indicator of PCB contamination in Narragansett Bay.

## SOUTH CAROLINA

THE CONESTEE FOUNDATION, INC. - \$13,725

DANA LEAVETT, 1 MARSHALL COURT, GREENVILLE, SC 29605

### *Learning From Lake Conestee: A Brownfields Site as a Multi-Disciplinary Teaching Resource*

The Conestee Foundation, Inc. is a non-profit organization that was incorporated with the express purpose of acquiring and rehabilitating Lake Conestee. The foundation acquired the lake with private funding and plans to convert what is now a neglected eyesore into a managed wetland complex, recreation area, and education center. The project is the first step in creating an environmental education center, with the entire property to become a laboratory for teaching and research. A small group of teachers in Greenville County in the four core academic disciplines, along with specialists representing public- and private-sector organizations, adapts existing environmental education materials to the conditions at Lake Conestee. Teachers from each of the county's 14 high schools are trained in the site-specific curriculum and provided with packets of resources. Assistance in funding field trips also is provided.

IRMO CHAPIN RECREATION COMMISSION - \$5,000

KEITH KARGEL, 200 LEISURE LANE, COLUMBIA, SC 29210

### *Environmental Education Curriculum Correlation for Grades 3 through 7*

The purpose of the project is to provide an environmental education curriculum and instruction guides teachers, park staff, and volunteers use as they conduct students on field trips to Saluda Shoals Park. Teams of teachers of grades 3 through 7 in District Five create the guides by adapting a nationally recognized curriculum to each grade level and conforming the curriculum to the South Carolina 2000 Science Standards, K-12, as well as to the cross-curricular standards set forth in the core curriculum. The curriculum guides focus on hands-on, inquiry-based activities to be conducted at approximately six field sites in Saluda Shoals Park that take advantage of the park's natural resources, including riverfront, wetland, forest, and meadow habitats.



## SOUTH DAKOTA

SOUTH DAKOTA DISCOVERY CENTER & AQUARIUM - \$4,750

TERRY LEWIS, 805 WEST SIOUX, PIERRE, SD 57501

### *Wetlands Workshops*

The project supports four Wetlands II Workshops held at outdoor education facilities. Participation in the wetlands workshop enhances teachers' knowledge of ecology and biology related to wetland habitats. Teachers engage in hands-on activities taken from the curriculum guides Water Education for Teachers and Wonders of Wetlands.

## TENNESSEE

*See page 7 for profiles of grants awarded to Shelby County Schools and the Tennessee Aquarium by EPA Headquarters.*

TENNESSEE FOUNDATION FOR AGRICULTURE IN THE CLASSROOM - \$15,000

CHARLES CURTIS, P.O. BOX 313, COLUMBIA, TN 38402

### *Communicating the Relationship Between Food, Fiber, and the Environment*

The trend toward an increasingly urban population has created a void among our nation's people in understanding the origin of the food and fiber products on which they depend for their livelihoods and the effects our actions have on the stability or instability of the environment. Under the project, \$500 Outdoor Classroom Learning Lab Grants are provided to 50 schools that sent teachers to the summer 2001 ambassador training workshops. The workshops, designed to conform to new state achievement standards for grades 3 through 12, focus on themes related to agriculture and management of natural resources. Teachers who receive the grants have attended one of 10 summer distance-learning workshops. The goal of the project is to inform and educate teachers and students about the importance of best management practices in the effort to improve water quality and management of natural resources in Tennessee.

YMCA OF MIDDLE TENNESSEE - \$5,000

DAWANA WADE, 900 CHURCH STREET, NASHVILLE, TN 37203

### *Environmental Education Workshops and Projects for Formal and Non-Formal Educators*

The Youth University sponsored by YMCA of Middle Tennessee provides a series of environmental education and service-learning workshops for non-profit, youth-oriented agencies; teachers; and childcare, camping, and youth development staff of YMCA. The purpose of the project is to provide to those individuals a variety of educational tools for use in strengthening and enhancing their programs. In addition, the participants are provided access to various state-of-the-art environmental curricula, as well as to environmental leaders and experts in the community.

## TEXAS

AUSTIN COLLEGE - \$22,494

PETER SCHULZE, 900 NORTH GRAND AVENUE, SHERMAN, TX 75090

### *Conservation Benefits of Restoring Blackland Prairie*

The goal of the project is to educate citizens about the consequences of various land use options in the Blackland Prairie region of Texas. Demonstration of management strategies educates students and landowners about uses of small tracts and of the effects of such uses on vital natural resources. Students in environmental science classes at Austin College work with public school teachers to design teaching modules that focus on the restoration of prairie lands. Other students of environmental science are involved in the hands-on process of restoring the native prairie and leading school children and area landowners on tours of prairie areas. Both school children and college students are provided opportunities to hone their critical-thinking skills and explore careers in environmental fields.



HOUSTON INDEPENDENT SCHOOL DISTRICT - \$10,575  
 ADA COOPER, 3830 RICHMOND, HOUSTON, TX 77027

*Tracking: Butterflies & Weather*

Elementary students are involved in hands-on, inquiry-based experiments in a butterfly garden and weather station constructed by teachers and parents. Parents are invited to participate in the experiments with their children, and teachers are trained on how to conduct the experiments and relevant theory before students and parents undertake them. The environmental studies are incorporated into science and mathematics curricula to allow students to observe the effects of the environment on all aspects of their lives. The garden and weather station are used throughout the year; scheduled classes are held, while free time is left for spontaneous activities.

RICHARDSON INDEPENDENT SCHOOL DISTRICT - \$5,000  
 JACK NOTEWARE, 1600 APOLLO ROAD, RICHARDSON, TX 75081

*Atrium Project — Organic Education*

A chemical-free garden that features native ecosystems is included in the atrium project. The garden is used to provide field experience, direct knowledge of native Texas plant life, and organic gardening skills to students and parent volunteers who bring various levels of experience to the project. Most participants are apartment dwellers who represent some 25 countries of origin. For many, the atrium area is their only opportunity to experience the exposure to nature that helps humans develop an understanding of the delicate balance between humans and nature. Participants in the project learn how to start an organic garden, how to ensure their projects are cost-effective, and how to conduct long term planning and perform maintenance. Numerous partners in the community take part in the project.

RICHARDSON INDEPENDENT SCHOOL DISTRICT - \$4,140  
 EILEEN ROSENBLUM, 400 SOUTH GREENVILLE, RICHARDSON, TX 75081

*Forestridge Blackland Prairie Garden*

The garden is used to initiate and sustain interest in and understanding of the Blackland Prairie through tactile exploration of plant materials and observation of the insects and birds that inhabit the garden. Students see, hear, smell, and touch some of the tall grasses, perennial plants, and trees that were seen and used by the people who were native to the area. Students observe the importance of food and shelter to the smallest inhabitants of the prairie, and they learn which birds, lizards, and insects are permanent residents and which are migrants. Language development is supported through meaningful experiences related to such areas as geology, geography, horticulture, agriculture, history, and social studies.

RICHARDSON INDEPENDENT SCHOOL DISTRICT - \$5,000  
 KATHY CLAYTON, 400 SOUTH GREENVILLE, RICHARDSON, TX 75081

*The Nature of Things — Environmental Garden*

The project develops an outdoor learning center that features a butterfly garden, a pond, and a native ecosystem. Through creating, maintaining, and studying the ecosystems, students increase their understanding of and respect for the environment and environmental issues that will confront them in their current and future world. The center provides real-world opportunities for students to engage in experimental, project-based learning activities, while increasing students' attainment of state standards for science, mathematics, and reading and writing. The curriculum is extended through the Texas Parks and Wildlife. Parents and community members are invited to participate in interactive, student-led tours and programs.



TARLETON STATE UNIVERSITY - \$4,960  
CAROL THOMPSON, BOX T-0390, STEPHENVILLE, TX 76402

*Enhancement of Environmental Sciences Education*

The university develops several field-based exercises for a number of existing college courses related to environmental science. The principal effort focuses on an environmental methods course. Students participate in field exercises that allow them to explore such topics as groundwater, site assessment, analysis for water quality, techniques, and wetlands. Students learn correct methods of data collection and examine the many problems that can arise in real-world settings, with both collection and interpretation. Exercises in collection techniques appropriate for water resources are collected and adapted to students' skill levels, as well as the environmental setting of concern.

TEXAS A&M UNIVERSITY - \$15,000  
KIM JONES, COLLEGE HALL 230, KINGSVILLE, TX 78363

*In Pursuit of Campus Ecology*

The objective of the project is to develop a hands-on summer internship program that assists community college students in developing plans to pursue careers in environmental science and engineering. Students in the south Texas area are recruited through community colleges and high schools to attend a summer program at the university that introduces them to environmental careers through classroom instruction, laboratory and fieldwork, discussion workshops, and exposure to environmental problems and practices. It is anticipated that the program will build a strong, long-lasting partnership between school districts and colleges in the area that will promote environmental engineering and environmental science as disciplines vitally involved in developing practical and environmentally beneficial solutions to difficult environmental problems. The complex environmental issues that confront south Texas and the Rio Grande Valley are becoming increasingly more difficult. It is anticipated that recruitment of students from the areas affected by those environmental problems to prepare for careers in environmental fields will promote career development in those fields and encourage students to develop leadership and explore innovation in natural systems solution technologies to which they may not otherwise be exposed.

TEXAS STATE TECHNICAL COLLEGE - \$5,000  
SAL GARCIA, 307 NORTH BRECKENRIDGE, BRECKENRIDGE, TX 76424

*Teacher Training on Water Quality Monitoring and Sampling Techniques*

Middle and high school science teachers attend a two-day workshop on techniques for monitoring and sampling for water quality. The effort is based on the premise that the public does not have a basic understanding of water quality or water pollution, in particular, non-point source pollution. If teachers are adequately trained, they can return to the classroom and transfer their knowledge to their students. The project helps increase public awareness and knowledge of water quality, watersheds, and the effects of pollution on water quality.

URBAN HARVEST - \$7,500  
ELIZABETH PROCTOR, P.O. BOX 980460, HOUSTON, TX 77098

*Environmental Education Reform Models for Outdoor Classrooms*

Urban Harvest uses environmental models that use outdoor classrooms to train teachers, administrators, and parents in Houston and 26 neighboring school districts. During workshops, participants learn how to construct a sustainable outdoor garden and classroom. While outdoor gardens have enjoyed increasing popularity in the Houston area, the failure rate for such projects is substantial. With appropriate instruction and curriculum available, teachers and students can construct sustainable nature areas that are supportive of a healthy environment. Outdoor classrooms provide a setting for exploration and an opportunity to help children increase their understanding of and skills related to the environment.



## UTAH

GARFIELD COUNTY SCHOOL DISTRICT - \$5,000

MARILYN BLULKLEY, P.O. BOX 398, 145 EAST CENTER, PANGUITCH, UT 84759

### *Watershed Restoration*

The purpose of the program is to develop an environmental education program that addresses the crucial issue in the area in which the district is located: restoration of the watershed. The objective of the program is to teach students in grades 5 through 8 of all ethnic and racial backgrounds about hands-on restoration and management of the local watershed. Students learn through hands-on demonstrations, outdoor activities, and interactive discussions with teachers and professionals in natural resources fields.

UNIVERSITY OF UTAH - \$5,000

LYNNE CHRONISTER, 1471 FEDERAL WAY, SALT LAKE CITY, UT 84102

### *River of Words Outdoor Classroom*

The annual event River of Words Outdoor Classroom reaches 120 students each year. The mission of Red Butte Garden and Arboretum at the University of Utah is to provide the intermountain west with a world-class botanical garden, an arboretum, and a pristine natural area that foster an understanding of regional horticulture and ecology. It creates opportunities for research and education and promotes and models responsible conservation of the environment.

UTAH DIVISION OF WILDLIFE RESOURCES - \$10,825

BRIAN NICHOLSON, 181 NORTH 200 WEST, LOGAN, UT 84321

### *Wetlands Monitoring Program*

The goal of the project is to increase citizens' knowledge about wetland resources in northern Utah and ability to make informed decisions through participation in a volunteer wetlands monitoring program. The project reaches its audience through classroom and on-site experiential training sessions. Participants interact with wetlands professionals during training and monitoring activities. The audience for the project includes 4 high school teachers and approximately 80 students; two landowners who have wetlands on their properties; and 40 citizen volunteers (working in four teams) who have a perceived "stake" in local wetlands, including hunters, birders, and members of conservation organizations.

UTAH SOCIETY FOR ENVIRONMENTAL EDUCATION - \$25,000

TIM BROWN, 350 SOUTH 400 EAST, SUITE G4, SALT LAKE CITY, UT 84111

### *Develop Leadership in Utah's Environmental Education Community*

The goals of the project are to develop environmental education guidelines that are specific to the state of Utah, to foster an understanding among providers of environmental education of the components environmental education programs should include, to develop leadership in Utah's environmental education community, and to increase the skills of environmental educators and the legitimacy of environmental education itself. The objectives of the project include: establishing a team of 6 to 12 people who will become leaders in Utah's environmental education community; training at least 100 environmental educators in the guidelines; distributing the guidelines to 150 environmental educators in the state; and increasing the legitimacy of environmental education by presenting the Guidelines for Environmental Education Providers in Utah at conferences of educators and natural resource meetings, as well as to representatives of the media.





## VERMONT

FAIRBANKS MUSEUM AND PLANETARIUM - \$5,000

CHARLES BROWNE, 1302 MAIN STREET, ST. JOHNSBURY, VT 05819

### *Teaching Tools for Sustainable Forestry*

The goals of the project are to purchase instructional and inquiry-based tools for field and classroom study of sustainable forestry, support a museum partnership with consulting foresters and a wildlife ecologist to produce a week-long professional development course on sustainable forestry for teachers in the four-state Northern Forest region, and disseminate in print and on the Internet an instructional guide that focuses on sustainable forestry and encourages inquiry-based classroom and outdoor study that meets state standards.

SHELBURNE FARMS - \$5,000

SUSAN DIXON, 1611 HARBOR ROAD, SHELBURNE, VT 05482

### *Place-based Landscape Analysis and Community Education (PLACE) Program*

Shelburne Farms and the Natural Areas Center of the University of Vermont have developed a new community-based environmental education model, PLACE. PLACE brings together teachers of kindergarten through grade 12, parents, civic leaders, and residents of the community for a series of lectures and hands-on field trips that explore the natural and cultural history of the community. Shelburne Farms works with teachers to develop curricula that engage students in kindergarten through grade 12 in real-world environmental issues in their community and that conform to state standards, as well.

VERMONT FORUM ON SPRAWL - \$10,000

SARAH JUDD, 110 MAIN STREET, BURLINGTON, VT 05401

### *"Way to Grow" Public Education Project Regarding Sprawl*

The organization expands its "Way to Grow" program to include: 1) 12 monthly events to take place in 12 different regions of the state, 2) a series of six articles to be submitted to weekly newspapers, and 3) improvements in the organization's web page. The program is designed to increase awareness among the public about steps individuals can take to combat sprawl in their communities.

## VIRGINIA

CITY OF HAMPTON - \$24,885

CHERYL COPPER, 22 LINCOLN STREET, HAMPTON, VA 23669

### *Hampton Watershed Restoration*

The project is intended to build environmental awareness by "bringing the home front to the waterfront" and to cultivate individual responsibility for keeping the waterways in the area clean. The objectives of the project are to reduce the amounts of lawn chemical used in the area to promote the planting of vegetative buffers, conservation of water, and composting. Residents of the Hampton area develop the understanding that preservation and improvement of water quality are vital issues in their community.

EASTERN SHORE COMMUNITY COLLEGE - \$14,607

MAUREEN DOOLEY, 293 LANKFORD HIGHWAY, MELFA, VA 23410

### *SPARK: Shore People Advancing Readiness for Kindergarten*

The objective of the SPARK project is to help families prepare their pre-school age children by developing basic skills through environmental education. The parents, along with their children, learn about the natural history of the Eastern Shore of Virginia through field trips and hands-on nature activities.





THE RIVER FOUNDATION, INC. - \$4,500  
JO NELSON, P.O. BOX 8508, ROANOKE, VA 24014

*Environmental Education for All Ages*

The project is designed to teach students in kindergarten through grade 9 the importance of environmental stewardship and to increase their knowledge of such environmental issues as clean water, soil, and air. Students have the opportunity to apply techniques for environmental testing and learn to identify environmental issues. The goal of the project is to expose students to environmental science.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY - \$4,875  
PAT HOBBS, 100 SANDY HALL, MAIL CODE 0360, BLACKSBURG, VA 24061

*Developing an Interactive Web-Based Educational Tool for Encouraging and Understanding Ecosystems*

The project provides students in kindergarten through grade 12, educators, and volunteers who work with the students easy access to forest inventory and analysis data that are available only to professionals. The goal of the project is to empower students to seek solutions that improve their environment. That goal is accomplished by creating a web site on which students and their teachers can query an interactive map of counties and obtain answers to their various questions.

## **VIRGIN ISLANDS**

UNIVERSITY OF THE VIRGIN ISLANDS IN ST. THOMAS - \$14,130  
JULIE WRIGHT, UNIVERSITY OF VIRGIN ISLANDS, #2 JOHN BREWERS BAY, ST. THOMAS, VI 00802-9990

*Virgin Island Home and Farm Water Quality Assessment Education and Outreach*

Using materials that speak to the special needs of communities in the Virgin Islands, the project expands on the existing Virgin Islands Home and Farm Water Quality Assessment (VI\*A\*Syst) Program to educate residents about water quality and practices that can cause destruction of the important marine and terrestrial ecosystems in the Virgin Islands and teach them how to detect contaminants in drinking water. Through educational materials, workshops, and site visits, participants are encouraged to adopt practices in and around the home and farm that protect their health and safeguard water quality. The program, promoted by a multimedia campaign, also provides residents who obtain their drinking water from cisterns with low-cost water-testing kits, along with training in the use of the kits.

## **WASHINGTON**

EARTH ISLAND INSTITUTE - \$15,000  
PAUL HORTON, 610 FOURTH AVENUE EAST, OLYMPIA, WA 98501

*Transportation Workshops at Olympia Schools*

The project organizes workshops for parents, teachers, students, and school administrators in the Olympia School District during which the participants discuss and develop school-based solutions related to transportation as an environmental, economic, and health concern. Climate Solutions leads 10 workshops for parents, students, and administrators and 6 workshops for teachers. Teacher education and participation reinforce the workshops for other school groups. The elements of the program are posted on the Internet to serve as a model for other communities that wish to explore such programs.



MASON CONSERVATION DISTRICT - \$15,746

JEANENE CAMPBELL, 1051 SE HIGHWAY 3, SUITE G, SHELTON, WA 98584-9195

*Pioneer School District Environmental Education Program*

The goal of the education reform project is to create an environmental education program that will reach every student in the Pioneer School District by August 31, 2002. The objectives of the program include integrating environmental education into existing curricula, planning field trips throughout the year, purchasing field equipment, and establishing an outdoor learning site. A coordinator from the Mason Conservation District works to form partnerships with community members to use their expertise to create a strong program. The program is an innovative, creative use of resources that serves as a model for other school districts.

RAINSHADOW NATURAL SCIENCE FOUNDATION - \$5,000

ANNETTE HANSON, P.O. BOX 3007, SEQUIM, WA 98382

*Dungeness Bay W.A.T.C.H. Watershed Activities To Change Habits*

The project delivers an effective environmental education experience to 215 students in grade 7 and 350 parents. That experience helps develop participants' ability to identify and address fecal coliform contamination in their watershed, a crucial ecosystem and environmental health issue in the area. Local environmental experts make classroom presentations, which are followed by a full-day field trip to the watershed. Participants also receive a family checklist for use in identifying sources of pollution and solutions to pollution problems. When the project has been completed, the foundation will share the program with educators; science and environmental education museums and centers; and local, state, and federal agencies so that it can be incorporated into school and public outreach programs.

SOUND FARMERS EDUCATION FOUNDATION - \$15,800

JOY GARITONE, 1045 THOMPSON ROAD, POULSBORO, WA 98370

*Sound Farmers Education Foundation Youth Agricultural Conservation Training Project*

The project educates members of 4-H and the Future Farmers of America who work in livestock projects about non-point source pollution resulting from agricultural practices. Through class presentations, demonstrations, field days at a local farm during which "hands-on" training is provided, and a tour of model farm sites in Kitsap County, the young people and their leaders learn about best management practices that can be applied to address issues related to non-point source pollution on their own small farms.

TAPTEAL GREENWAY - \$4,995

GINGER WIREMAN, P.O. BOX 3007, RICHLAND, WA 99352

*Watershed Education*

The program reaches preschool and school-age children, their adult care givers, and teachers with interactive, formal or informal, classroom or field experiences that help them develop an understanding of the water cycle, watersheds, water pollution, riparian and shrub-steppe habitats, and the web of life. After participating in the program, participants are able to describe the water cycle and the watershed, identify and appreciate plants of the riparian and shrub-steppe habitats, and describe the needs of area fish and wildlife and the life cycle of the salmon. Participants also learn to behave in a manner that protects public property and water resources and to protect their health when they come into contact with the river.



WEST SOUND ACADEMY - \$9,840  
JAMES KOLB, P.O. BOX 807, POULSBO, WA 98370

### *Creating a Sense of Place*

The project trains six members of the staff of West Sound Academy in the use of existing materials to develop and implement an integrated environmental science course for students in grades 6 through 12. With the guidance of teachers and local resource experts, students develop the knowledge and skills necessary to collect, interpret, and present data on watersheds. Students use their knowledge and skills to work with teaching staff and facilitators of the NatureMapping program to develop a community education outreach program. Working with those professional authorities, the students create two "interactive storybooks" related to the health of the local watershed for display at the Poulsbo Marine Center and Kitsap County Fair. The students also create a Puget Soundbook web site to facilitate communication with the community.

## **WEST VIRGINIA**

CACAPON INSTITUTE - \$5,000  
W. NEIL GILLES, ROUTE 1, BOX 326, HIGH VIEW, WV 26808

### *What's in a Watershed?*

This project funds Watershed Stewardship fairs (WSF) for students at three high schools. The fairs increase students' understanding of environmental issues and enhance their ability to respond to issues in an informed manner by focusing on water quality studies. The workshop is designed to foster critical thinking in forestry practices, application of best management practices, and activities that affect drinking water quality, non-point source pollution, and conservation of plants and animals.

GREAT KANAWHA RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC. - \$1,500  
JACKIE MOALES, 418 GOFF MOUNTAIN ROAD, CROSS LANES, WV 25313

### *A Watershed of Wisdom: Blue Creek Watershed Association Environmental Education Project*

The goal of the project is to educate teachers, students, and members of the local community about watershed issues and the health issues related to water quality. The program familiarizes students with their local environment through hands-on experiences in assessment of the watershed. EPA funding provides for the purchase of a non-point Source EnvironScape Unit, a riparian kit, a groundwater kit, and watershed kits. Participants in the program include 6 teachers and approximately 225 students in grades 3 through 5.

RANDOLPH COUNTY SCHOOLS - \$5,000  
CAROL CAIN, 40 ELEVENTH STREET, ELKINS, WV 26241

### *Randolph County Outdoor Initiative*

The goal of the project is to educate 350 students in grade 5 about the importance of environmental education and to help the students explore solutions to environmental problems. Students explore local waterways and forests, examine local history and traditional folk art, and learn about resource management practices. The students develop a sense of responsibility for the preservation of the community.



## WISCONSIN

MARINETTE COUNTY LAND & WATER CONSERVATION - \$5,000

GEORGE CLEEREMAN, COURTHOUSE, 1926 HALL AVENUE, MARINETTE, WI 54143-1717

### *Shoreline Best Practices*

Property owners receive special assistance from Marinette County Land & Water Conservation and that organization's partners in developing stewardship plans for their properties. The plans focus on practices that are appropriate for upland and shoreland areas. Restoration and protection of vegetative shoreline buffers are key components of the plans. The goals of the project include increasing the property owners' knowledge of the effects of development on shoreline habitat and water quality and encouraging participation in the stewardship planning process.

WISCONSIN WETLANDS ASSOCIATION - \$4,920

CHARLES LUTHIN, 222 SOUTH HAMILTON STREET, SUITE 1, MADISON, WI 53703

### *Wisconsin's Purple Loosestrife Bio-Control Program*

The association and the Wisconsin Department of Natural Resources coordinates a workshop for teachers on biocontrol of the purple loosestrife. Teachers of grades 4 through 6 are written teaching materials developed from existing materials on biological control of purple loosestrife. The curriculum conforms to the state's teaching standard.

## WYOMING

UNIVERSITY OF WYOMING - \$15,000

DUANE KEOWN, P.O. Box 3992, WYOMING HALL, LARAMIE, WY 82071

### *Wild Wonderful Wyoming Workshops*

Faculty and staff of the Wyoming Conservation Connection in the university's Natural Science Program prepare and deliver eight workshops. The workshops are delivered on site in the school districts; to build a sense of place, local resources are used. The audience for the workshops is teachers of all subjects in grades 7 through 12 in Wyoming schools. The goal of the project is to help students become environmentally knowledgeable, skilled, and dedicated citizens who are willing to work toward achieving and maintaining a dynamic equilibrium between the quality of life and the quality of the environment. The manual Choices for the Future are given to the 160 secondary school teachers who attend the workshops.



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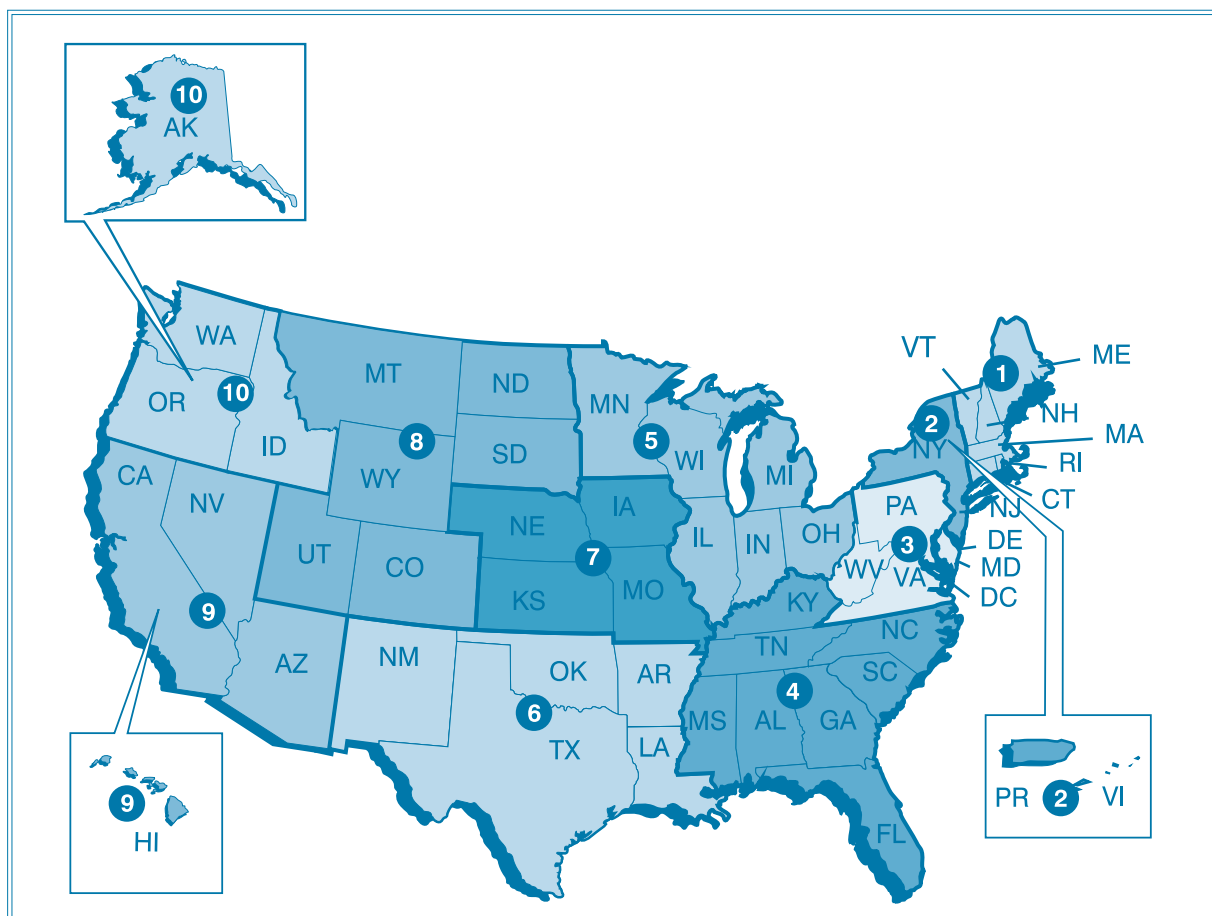
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**NOTES**





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